

**NOTICE OF COMPLIANCE/NON-COMPLIANCE**

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

Division of Environment  
Waste Management Program

Initial Inspection: Yes No Follow-up Inspection: Yes No Complaint: Yes No  
 Hazardous Waste: LDF() TSF() GEN~~X~~ KG() SQ() UNV() NOT A GEN() OTHER()  
 Used Oil: UOG~~X~~ UOT() UOM() UOP() UOB()  
 Solid Waste: SLF() TRS() CDL() ILF() YWC() SWP() HHW() OBS() MTP() WTM() WTP() WTR() WTT()

TO: Robbie Manufacturing, Inc. 6,29,04  
 Facility Name  
10810 Mid American Ave., Lenexa, KS. 66219  
 Address City State Zip Code  
Johnson  
 County

K S D O S Y O R O I Y R

EPA Identification No.

Solid Waste Permit No.

This inspection was conducted to determine compliance with the state and federal solid and/or hazardous waste statutes and regulations.

☒ Violations As Follows☐ No Violations Identified

Citation

Description of Violation

#1 KAR 28-31-4(g)(2) Failure to mark the accumulation start date on 31 containers of hazardous waste.  
 #2 KAR 28-31-4(g)(3) Failure to mark 31 containers with the word's "Hazardous Waste"  
 #3 KAR 28-31-4(g)(1)(A) Failure to close 5 containers of hazardous waste.

See next page☐ Other Comments/Concerns:

456986



RCRA RECORDS

This notice is provided to call immediate attention to those areas of non-compliance. This notice does not constitute a compliance order issued by KDHE and may not be a complete listing of all violations which may be identified as a result of this inspection. Your facility must submit in writing within 30 days of receipt of this notice a description of all corrective actions taken. Any corrective actions taken by your facility will be considered in subsequent enforcement follow-up. *\*response due by 7/29/04*

Your response must be submitted to:

Rebecca Wanner  
 Kansas Department of Health and Environment  
 Bureau of Waste Management  
 1000 SW Jackson, Suite 320  
 Topeka, Kansas 66612-1366

If you have any questions concerning this Notice or wish to discuss your response, you may call me at (785) 296-1600.

This Notice was prepared by:

Rebecca Wanner  
 Date 6,29,04

I, the undersigned hereby acknowledge that I have received and read this Notice.

Printed Name: George Jones  
 Signature: George Jones  
 Title: Manufacturing Projects  
 Date 6,29,04

**NOTICE OF COMPLIANCE/NON-COMPLIANCE  
CONTINUATION PAGE**

KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT

Division of Environment

Waste Management Program

TO: Robbie Manufacturing, Inc. 6, 29, 04  
Facility Name Date

This page is a continuation of the Notice of Compliance/Non-Compliance form.

CitationDescription of Violation#4 KAR 28-31-4(g)(1)(A)Failure to conduct weekly inspections before 8/20/03  
on 490 day storage Area.Failure to conduct weekly inspections on Clean-up room  
(3 drums at the time of the inspection).#5 KAR 28-31-4(j)(1)(A)Failure to close 8 satellite accumulation containers.#6 KAR 28-31-4(i)(1)(B)Failure to label 8 satellite accumulation containers with  
the words "Hazardous Waste".

Other Comments/Concerns:

Initials of person preparing this form: RebeccaDate 6, 29, 04Initials of person receiving this form: ASDate 6, 29, 04





K A N S A S

RODERICK L. BREMBY, SECRETARY

DEPARTMENT OF HEALTH AND ENVIRONMENT

KATHLEEN SEBELIUS, GOVERNOR

June 30, 2004

George Jones  
Robbie Manufacturing, Inc.  
10810 Mid America Ave.  
Lenexa, KS 66219

RE: June 29, 2004, Hazardous Waste Compliance Inspection  
Robbie Manufacturing, Inc.; Lenexa, KS; Johnson County  
EPA ID Number: KSD054080148

Dear Mr. Jones:

On June 29, 2004, I conducted a compliance inspection at the above referenced facility. During that inspection, six (6) violations were cited. In reviewing my notes from the inspection, I find that an additional violation must be cited as follows:

Violation 7 Failure to label two 55-gallon drums with the words "Used Oil" in violation of K.A.R. 28-31-16.

I am also modifying Violations 1 and 2 to include an additional container for a total of 32 containers for each violation. The additional container is the 55-gallon drum left by the laundry contractor after centrifuging your rags. The drum was about 1/3 full at the time of the inspection. After discussing this drum with Bureau of Waste Management personnel, it has been determined that the drum is not under the control of an operator, and therefore does not meet the definition of a satellite accumulation container. This drum must be labeled "Hazardous Waste" and dated with the accumulation start date.

If you have any questions concerning this letter please contact me at (785) 296-4332.

Sincerely,

Rebecca Wenner  
Environmental Scientist

c: Mark Duncan, BWM  
John Mitchell, BWM  
Julie Coleman, NEDO



KANSAS DEPARTMENT OF HEALTH AND ENVIRONMENT  
BUREAU OF WASTE MANAGEMENT



**COMPLIANCE INSPECTION CHECKLIST  
COVER PAGE**

<b>General</b>	<input checked="" type="checkbox"/> <b>Routine</b>	<input type="checkbox"/> <b>Complaint</b>
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EPA/ ID/Permit No. KSD054080148 Time 2:00 pm Date 6/29/04

Facility Name Robbie Manufacturing, Inc. District NE

Street 10810 Mid America Ave. City Lenexa, KS ZIP 66219

Mailing Address (if different than above) Same

County Johnson Number of Employees About 130

Phone 913-492-3400 Fax (913) 492-1543 e-mail \_\_\_\_\_

Contact(s) George Jones, Manufacturing Projects Mgr. Inspector(s) Rebecca Wenner

Type of Business Packaging and Labeling Services (NAIC 56191); Flexigraphic Printer

Operating Hours and days 24 hours a day, 7 days a week.

Lat/Long Location Method: \_\_\_\_\_ Lat/Long Location Feature: \_\_\_\_\_

Latitude: (like 37.57621) \_\_\_\_\_ Longitude: (like -101.57621) \_\_\_\_\_

Has the Lat/Long been entered in the SW database? Yes ☐ No ☒

**Hazardous Waste Inspection:**

☒ Yes ☐ No

Generator size classification: ☐ Closed/Inactive ☐ Small Qty. Generator ☒ EPA Generator  
☐ Not a Generator ☐ Kansas Generator ☐ Transporter

Other Regulated Activities: ☐ T/S/D Facility ☒ Used Oil Activities  
(complete applicable checklist) ☐ Tanks ☐ Universal Waste Activities

Has the company declared any information/processes as trade secrets KSA 65-3447? No  
If yes, explain: \_\_\_\_\_

If facility is closed/inactive, or has recently moved please provide a brief description.

**Used Oil Activities:** ☒ Yes ☐ No

Does the facility have a total above-ground storage capacity of used oil (excluding containers less than 55-gallons) of more than 1,320 gallons? ☐ Yes ☒ No  
If yes, then the facility is subject to SPCC requirements due to Used Oil activities.

**Facility Used Oil Activities (Attach a checklist for each one marked):**

☒ Generator ☐ Collection Center / Aggregation Point  
☐ Transporter / Transfer Facility ☐ Used Oil Processor / Re-Refiner  
☐ Used Oil Burner (Off-Spec Fuel) ☐ Used Oil Marketer

**Attach all applicable checklists.**



## HAZARDOUS WASTE GENERATOR COMPLIANCE INSPECTION CHECKLIST

### Industrial Wastes Generated

List all hazardous wastes first, then list solid wastes.

Waste description or process	If waste is hazardous, give HW ID Number	Amount generated per month	Amount presently in storage	Oldest accumulation start date	Recycling or disposal method
Wash-Up Solvent and Waste Ink	D001 (Ethanol and n-Propyl Acetate)	About 7,600 pounds/week	About 890 gallons	6/22/04	WRR Environmental Services via Barton Solvents
Still Bottoms	Unknown (but disposed as hazardous)	< 20 pounds/month	< 2 pounds	Unknown (< 90 days)	"
Used Compressor Oil	Exempt	< 55 gallons/year	2, 55-gallon drums	N/A	Safety-Kleen
Solvent and Oil Contaminated Rags	Exempt	N/A	N/A	N/A	Laundered by Walker Tow
Other solid waste (pallets, cardboard cones, scrap plastic film, etc.)	Non-Hazardous	N/A	N/A	N/A	Deffenbaugh

**General Requirements (GGR)**

YES NO NA V#

1. Has the generator evaluated each potentially hazardous waste to determine if it is hazardous? **KAR 28-31-4(b)** ☒ ☐ ☐
- a. If waste was tested, was the analysis conducted by a laboratory certified by KDHE? **KAR 28-31-4(b)(3)(A)** ☐ ☐ ☒
- b. If waste was tested, are the results kept for three years from date the waste was last sent for on-site or off-site for treatment, storage or disposal? **KAR 28-31-4(f)(1)(C)** ☐ ☐ ☒
- c. If waste was not tested, did the generator use knowledge of the hazardous characteristics of the waste in light of the materials or processes used? **KAR 28-31-4(b)** ☐ ☐ ☒
2. If hazardous waste is disposed of via the sanitary sewer to a Publicly Owned Treatment Works (POTW), has the generator received written approval from the City - POTW? ☐ ☐ ☒
3. Has the facility obtained a Special Waste Disposal Authorization (SWDA) for each special waste? **KAR 28-29-109(c)** ☐ ☐ ☒
- a. List each SWDA authorization number: \_\_\_\_\_
4. If the generator treats or recycles hazardous waste on-site (such as in a still), do they count waste each time prior to being treated or recycled? **KAR 28-31-4(o)** ☒ ☐ ☐
- a. If the waste is not counted, is it exempt because of a closed-loop system? ☐ ☐ ☐

**General Requirements:**☒ Compliance ☐ Non-Compliance ☐ NA**Notification Requirements (GGR)**

5. Has generator notified KDHE and obtained an EPA Identification Number? **KAR 28-31-4(c)(1)** ☒ ☐ ☐
6. Is current notification accurate? **KAR 28-31-4(c)(1)** ☒ ☐ ☐

**Notification Requirements:**☒ Compliance ☐ Non-Compliance ☐ NA



**Non-Accumulating Small Quantity Generator Requirements**

YES NO NA V#

7. If the SQG is accumulating less than 55 pounds ( 25 kg.) of hazardous waste on-site,

- a. Is the SQG recycling, treating, or disposing of this waste on-site in an acceptable manner? **KAR 28-31-4(m)(2)**

☐ ☐ ☐

- b. Is the SQG sending this waste off-site for treatment, storage, or disposal?  
**KAR 28-31-4(m)(2)**

☐ ☐ ☐**Non-Accumulating SQG Requirements:**☐ Compliance ☐ Non-Compliance ☒ NA

Generator Checklist Revised June 2, 2004 (If small quantity generator not accumulating, stop here)

**Accumulating Small Quantity Generator Requirements**

8. If the SQG is accumulating 55 pounds (25 kg.) or more of hazardous waste,

- a. Is the SQG recycling, treating, or disposing of this waste on-site in an acceptable manner? **KAR 28-31-4(m)(2)**

☐ ☐ ☐

- b. If the SQG is sending waste off-site for treatment, storage, or disposal, is the waste sent to a TSD or some other approved waste management facility? **KAR 28-31-4(m)(2)**

☐ ☐ ☐**Accumulating SQG Requirements:**☐ Compliance ☐ Non-Compliance ☒ NA**Pre-Transport Requirements (GPT)**

9. Does generator package, label (flammable liquid, poison, etc.), and mark (consignee's or consignor's name and address, etc.) waste in accordance with the requirements outlined in 49 CFR Parts 172, 173, 178, and 179 (DOT)? **KAR 28-31-4(e)**

☐ ☐

- a. Does the generator mark each container of 110 gallons or less as shown below?  
**KAR 28-31-4(e)(3)(B)**

☐ ☐ ☐

*Hazardous Waste-Federal Law Prohibits Improper Disposal.*

*If found, contact the nearest police or public safety authority or the US EPA.*

*Generator's Name and Address  
Manifest Document Number*

10. Does the generator only use a transporter who has registered with KDHE and obtained an EPA Identification Number? **KAR 28-31-4(c)(2)**

☐ ☐**Pre-Transport Requirements:**☐ Compliance ☐ Non-Compliance ☒ NA

# Storage Requirements (GPT)

YES NO NA V#

11. If the generator temporarily stores waste in containers,
  - a. Is the accumulation start date marked on each container?  
**KAR 28-31-4(g)(2) or KAR 28-31-4(h)(3) or KAR 28-31-4(m)(2)(B)**

☐ YES ☒ NO ☐ NA 1
  - b. Is each container clearly marked with the words "Hazardous Waste"?  
**KAR 28-31-4(g)(3) or KAR 28-31-4(h)(4) or KAR 28-31-4(m)(2)(B)**

☐ YES ☒ NO ☐ NA 2
  - c. Are all containers holding hazardous waste in good condition and closed during storage except when necessary to add or remove waste? **KAR 28-31-4(g)(1)(A) or KAR 28-31-4(h)(2)(A) or KAR 28-31-4(m)(2)(B)**

☐ YES ☒ NO ☐ NA 3
  - d. Does generator conduct weekly inspections of containers for signs of leakage and/or deterioration caused by corrosion or other factors?  
**KAR 28-31-4(g)(1)(A) or KAR 28-31-4(h)(2)(A) or KAR 28-31-4(m)(2)(B)**

☐ YES ☒ NO ☐ NA 4

    - A. If yes, are these inspections documented in a log that includes complete date and time of inspection, name of inspector, notations of observations, and date and nature of remedial actions? **KAR 28-31-4(k)**

☒ YES ☐ NO ☐ NA
12. If SQG or Kansas generator is accumulating 2,200 lbs. (1,000 kg.) or more of hazardous waste or 2.2 lbs (1 kg.) or more of acutely hazardous waste, then check yes and continue with EPA generator requirements.
 

☐ YES ☐ NO ☒ NA

## Storage Requirements:

☐ Compliance ☒ Non-Compliance ☐ NA

(If small quantity generator accumulating <1,000 Kilograms, stop here)

Generator Checklist Revised June 2, 2004



**Storage Requirements for Kansas and EPA Generators (GPT)**

YES NO NA V#

13. If waste in containers is incompatible with other materials stored nearby, are the containers separated from the other materials by means of a dike, berm, wall, or other means? **KAR 28-31-4(g)(1)(A) or KAR 28-31-4(h)(2)(A)** ☐ ☐ ☒
14. Is EPA generator storing hazardous waste for 90 days or less? **KSA 65-3441(a)(2)** ☒ ☐ ☐
15. Are containers holding ignitable or reactive waste(s) located at least 50 feet (15 meters) from the generator's property line? (EPA Generator Only) **KAR 28-31-4(g)(1)(A)** ☒ ☐ ☐

(If waste is placed in tanks complete the tank checklist and Subpart BB checklist if storing organic waste.)

**Storage Requirements:**☒ Compliance ☐ Non-Compliance ☐ NA**Satellite Accumulation Requirements for Kansas and EPA Generators (GPT)**

16. If the Kansas or EPA generator has satellite accumulation areas,
- a. Is 55-gallons or less of each waste stream accumulated at or near the point of generation, in one container, which is under the control of the operator of the process generating that waste? **KAR 28-31-4(j)(1)** ☒ ☐
- b. Is each container in good condition and closed except to add or remove waste? **KAR 28-31-4(j)(1)(A)** ☐ ☒ 5
- c. Is each container marked with the words "Hazardous Waste"? **KAR 28-31-4(j)(1)(B)** ☐ ☒ 6
- d. Is each container marked with the accumulation start date at the time more than 55-gallons is accumulated, or an additional container is started for the same waste stream? **KAR 28-31-4(j)(2)** ☐ ☐ ☒
- e. Is each container managed as a storage container within three days of no longer meeting the definition of a satellite container? **KAR 28-31-4(j)(2)** ☐ ☐ ☒

**Satellite Accumulation Requirements:**☐ Compliance ☒ Non-Compliance ☐ NA

## Manifests Requirements for Kansas and EPA Generators (GMR)

YES NO NA V#

- |     |   |                                     |                          |                                     |
|-----|---|-------------------------------------|--------------------------|-------------------------------------|
| 17. | If a contractual agreement is used in place of manifesting? (Kansas Generators only)  |                                     |                          |                                     |
| a.  | Does the contractual agreement include the type of waste and frequency of shipments? <b>KAR 28-31-4(d)(7)(A)</b>  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b.  | Is the vehicle used to transport the waste owned and operated by the reclaimer of the waste? <b>KAR 28-31-4(d)(7)(B)</b>  | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c.  | Is a copy of the agreement kept for a period of three years after termination of agreement? <b>KAR 28-31-4(d)(7)(C)</b>   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| 18. | If required, is a hazardous waste manifest used? <b>KAR 28-31-4(d)(1)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| a.  | If yes, does each manifest include:   |                                     |                          |                                     |
| 1.  | Generator EPA identification number (12-digit) and a unique 5-digit manifest document number? <b>KAR 28-31-4(d)(1)</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 2.  | Number of pages? <b>KAR 28-31-4(d)(1)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 3.  | Generator's name and mailing address? <b>KAR 28-31-4(d)(1)</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 4.  | Generator's phone number? <b>KAR 28-31-4(d)(1)</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 5.  | Each transporter's name? <b>KAR 28-31-4(d)(1)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 6.  | Each transporter's EPA identification number? <b>KAR 28-31-4(d)(1)</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 7.  | Name and site address of designated facility? <b>KAR 28-31-4(d)(1)(A)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 8.  | Designated facility's EPA identification number? <b>KAR 28-31-4(d)(1)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 9.  | Waste description (DOT shipping name, hazard class, packing group and identification number)? <b>KAR 28-31-4(d)(1)</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| i.  | For waste using a "n.o.s." description, are the requirements of 49 CFR 172.203(k) met? <b>KAR 28-31-4(d)(1)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 10. | Number and type of containers? <b>KAR 28-31-4(d)(1)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 11. | Total quantity? <b>KAR 28-31-4(d)(1)</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 12. | Unit (weight or volume)? <b>KAR 28-31-4(d)(1)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 13. | Special handling instructions (if applicable)? <b>KAR 28-31-4(d)(1)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 14. | Generator's certification including waste minimization statement, generator's signature and date? <b>KAR 28-31-4(d)(4)(A)</b>                                       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 15. | Name, signature, and date of initial transporter? <b>KAR 28-31-4(d)(4)(B)</b>   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| b.  | Does generator retain a copy of each initial manifest signed and dated by both generator and transporter? <b>KAR 28-31-4(d)(4)(C)</b>                               | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| c.  | Does generator retain a copy of each manifest for three years that was signed and dated by a representative of the designated facility? <b>KAR 28-31-4(f)(1)(A)</b> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| d.  | If generator has failed to receive a signed copy of a manifest within 45 days of initiating a shipment, was an exception report filed? <b>KAR 28-31-4(f)(4)(B)</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |
| 1.  | If yes, was copy retained for three years? <b>KAR 28-31-4(f)(1)(B)</b>  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            |

### Manifesting Requirements:

☒ Compliance    ☐ Non-Compliance    ☐ NA



**Land Disposal Restriction Requirements for Kansas and EPA Generators (GLB)**

YES NO NA V#

19. If the generator's waste is **not** subject to the Land Disposal Restrictions regulations, please explain why: \_\_\_\_\_
20. If the generator sent waste **not meeting** the treatment standards to an off-site treatment or storage facility, did the generator provide a one-time written notice with the initial shipment of each different waste stream? **K.A.R. 28-31-14/40 CFR 268.7(a)(2)** ☒ ☐ ☐
- a. Did the notice include: EPA hazardous waste number, manifest number, F001-F005, F039 constituents and each underlying hazardous constituents to be monitored (unless all monitored), wastewater or non-wastewater classification, waste subcategory (if any), and waste analysis data, if available? **K.A.R. 28-31-14/40 CFR 268.7(a)(2)** ☐ ☐ ☒
21. If the generator sent waste **meeting** the treatment standards to an off-site treatment, storage facility, or disposal facility, did the generator provide a one-time written notice and signed certification statement with the initial shipment to each TSD receiving the waste which certified the waste met the applicable treatment standards? **K.A.R. 28-31-14/40 CFR 268.7(a)(3)** ☐ ☐ ☒
- a. Did the notice include: EPA hazardous waste number, manifest number, F001-F005, F039 constituents and each underlying hazardous constituents to be monitored (unless all monitored), wastewater or non-wastewater classification, waste subcategory (if any), and waste analysis data, if available? **K.A.R. 28-31-14/40 CFR 268.7(a)(2)** ☐ ☐ ☐
22. If the generator treated waste in tanks or containers to meet applicable treatment standards:
- a. Did the generator have a written waste analysis plan on-site describing procedures used to comply with the treatment standards? **K.A.R. 28-31-14/40 CFR 268.7(a)(5)** ☐ ☐ ☒
- b. If the generator sent the treated waste off-site, did the generator provide a notice and signed certification statement with the initial shipment? **K.A.R. 28-31-14/40 CFR 268.7(a)(5)(iii)** ☐ ☐ ☒
23. Has the generator retained copies of all notices, certifications, waste analysis data, and other documents for at least 3 years from the last date the corresponding waste was last managed on-site or shipped off-site? **K.A.R. 28-31-14/40 CFR 268.7(a)(8)** ☒ ☐ ☐
24. If the generator claims that his characteristic waste, including all applicable underlying hazardous constituents, is no longer hazardous:
- a. Did the generator submit a one-time notice and signed certification to the KDHE and retain a copy for their files? **K.A.R. 28-31-14/40 CFR 268.9(d)** ☐ ☐ ☒
- b. Is the information on the notice and certification current? **K.A.R. 28-31-14/40 CFR 268.9(d)** ☐ ☐ ☒

Note: If a generator's waste is subject to any Land Disposal Restriction regulations not covered above, then please discuss these situations in the summary.

LDR Requirements:

☒ Compliance ☐ Non-Compliance ☐ NA

**Special Conditions (GSC)**

YES NO NA V#

25. If the generator has shipped/received hazardous waste to/from a foreign source, did they comply with the requirements of 40 CFR 262.53 and/or 40 CFR 262.54? ☐ ☐ ☒

If hazardous waste was shipped/received to/from a foreign source, please describe in summary.

**Special Conditions Requirements:**☐ Compliance ☐ Non-Compliance ☒ NA**Kansas Generator's Emergency Preparedness Requirements (GPT)**

26. Has generator designated one employee as emergency coordinator?  
**KAR 28-31-4(h)(6)** ☐ ☐
- a. Is the emergency coordinator available to respond to an emergency by reaching the facility within a short period of time? **KAR 28-31-4(h)(6)** ☐ ☐
- b. Is the emergency coordinator or his/her designee prepared to respond to any emergencies (fires, spills, or releases) that arise? **KAR 28-31-4(h)(9)** ☐ ☐
27. Is the following information posted next to at least one telephone which is accessible with little or no delay in an emergency? **KAR 28-31-4(h)(7)**
- a. Name and telephone number of the emergency coordinator(s)? **KAR 28-31-4(h)(7)(A)** ☐ ☐
- b. Location of fire extinguishers and spill-control material and if available fire alarms?  
**KAR 28-31-4(h)(7)(B)** ☐ ☐
- c. Telephone number of fire department unless facility has a direct alarm (911 is acceptable)? **KAR 28-31-4(h)(7)(C)** ☐ ☐
28. Have employees been trained so that they are familiar with proper waste handling and emergency procedures that are relevant to their responsibilities during normal facility operations? **KAR 28-31-4(h)(8)** ☐ ☐

**KS Gen.'s Emergency Preparedness Requirements:**☐ Compliance ☐ Non-Compliance ☒ NA**Hazardous Waste Reporting Requirements for Kansas and EPA Generators (GRR)**

29. Has Kansas or EPA generator submitted an annual monitoring fee and report to KDHE?  
**KAR 28-31-10(g)(1) or KAR 28-31-10(g)(3)** ☒ ☐
30. Has EPA generator submitted a biennial report(s) to KDHE? **KAR 28-31-4(f)(2)(A)** ☒ ☐ ☐
- a. Does generator retain a copy of the report for three years? **KAR 28-31-4(f)(1)(B)** ☒ ☐ ☐

**Hazardous Waste Reporting Requirements:**☒ Compliance ☐ Non-Compliance ☐ NA

<b>Preparedness and Prevention Requirements for Kansas and EPA Generators (GPT)</b>
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YES NO NA V#

- |   |  |
|---|--|
| <p>31. Has the generator maintained and operated the facility to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.31</b></p>   | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  |
| <p>32. <b>If appropriate</b>, based upon the nature and quantity of each waste generated and stored at the facility, is the facility equipped with:</p> <p>a. Internal communication or alarm system easily accessible in case of emergency? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.32(a)</b></p> <p>b. Telephone or hand-held two-way radio capable of summoning emergency assistance from local police departments, fire departments, or State or local emergency response teams? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.32(b)</b></p> <p>c. Portable fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.32(c)</b></p> <p>d. Water of adequate volume and pressure to supply hose streams, foam producing equipment, automatic sprinklers, and water spray systems.? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.32(d)</b></p>   | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| <p>33. Is the equipment (a-c above) tested and maintained to ensure its proper operation? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.33</b></p>   | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  |
| <p>34. Does a check of the facility show sufficient aisle space to allow unobstructed movement of personnel and equipment? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.35</b></p>  | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  |
| <p>35. <b>As appropriate</b>, for each type of waste handled, has the generator attempted to make the following arrangements:</p> <p>a. Familiarized the local emergency authorities with the facility, properties and hazards of each waste handled, locations of workers, entrances to facility roads and possible evacuation routes? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.37(a)(1)</b></p> <p>b. Designated one authority where one or more police or fire departments might respond to an emergency? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.37(a)(2)</b></p> <p>c. Made agreements with local emergency response teams, emergency response contractors, and equipment suppliers? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.37(a)(3)</b></p> <p>d. Familiarized local hospitals with the properties of hazardous waste handled and types of injuries or illness which could result from fires, explosions, or releases at the facility. <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.37(a)(4)</b></p> | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/><br><input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> |
| <p>36. Do personnel have immediate access to an internal alarm or emergency communications device, either directly or through visual or contact with another employee, when handling hazardous waste (unless such a device is not required under § 265.32)? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.34</b></p>   | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  |
| <p>37. In cases where local authorities decline to enter into such arrangements, is the refusal documented? <b>K.A.R. 28-31-4(g)(4) or K.A.R. 28-31-4(h)(5)/40 CFR 265.37(b)</b></p>  | <input checked="" type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>  |

<b>Preparedness and Prevention Requirements:</b> <span style="margin-left: 100px;"><input checked="" type="checkbox"/> Compliance</span> <span style="margin-left: 50px;"><input type="checkbox"/> Non-Compliance</span> <span style="margin-left: 50px;"><input type="checkbox"/> NA</span>
--

Generator Checklist Revised June 2, 2004 (If Kansas generator, stop here)

**Personnel Training for EPA Generators (GPT)**

YES NO NA V#

38. Has the generator established a hazardous waste management training program? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(a)(1)** ☒ ☐
- a. Is the program directed by a person trained in hazardous waste management? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(a)(2)** ☒ ☐
- b. Are new personnel trained within six months after their employment or placement to a new position? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(b)** ☒ ☐
- c. Are new employees supervised until training is completed? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(b)** ☒ ☐
- d. After initial training, are employees trained on an annual basis? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(c)** ☒ ☐
- e. Does the generator maintain the following documents and records:
1. Job title for each position related to hazardous waste management and the name of the employee filling each job? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(d)(1)** ☒ ☐
2. Written job description for each position? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(d)(2)** ☒ ☐
3. Description of type and amount of both introductory and continuing training to be given each person, including the implementation of the contingency plan? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(d)(3)** ☒ ☐
4. Records of training or job experience completed by facility personnel? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(d)(4)** ☒ ☐
5. Are training records kept on all current until closure and all past employees for three years from last date of employment? **K.A.R. 28-31-4(g)(4)/40 CFR 265.16(e)** ☒ ☐

**Personnel Training Requirements:**☒ Compliance ☐ Non-Compliance ☐ NA**Contingency Plan for EPA Generators (GPT)**

39. Does the generator have a contingency plan? **K.A.R. 28-31-4(g)(4)/40 CFR 265.51(a)** ☒ ☐
- If yes,
- a. Does the plan list the name, home address, and phone numbers (home and office) of each designated emergency coordinator in the order in which they should be contacted? **K.A.R. 28-31-4(g)(4)/40 CFR 265.52(d)** ☒ ☐
- b. Is an emergency coordinator available at all times? **K.A.R. 28-31-4(g)(4)/40 CFR 265.55** ☒ ☐
- c. Does the plan describe emergency actions facility personnel must take to respond to fires, explosions, or releases of hazardous waste? **K.A.R. 28-31-4(g)(4)/40 CFR 265.52(a)** ☒ ☐
- d. Does the plan describe arrangements made with police, fire departments, hospitals, contractors, or any emergency response agency? **K.A.R. 28-31-4(g)(4)/40 CFR 265.52(c)** ☒ ☐
- e. Does the plan include a list of all emergency equipment at the facility, its location, a physical description of each item on the list, and a brief outline of the capabilities of each item? **K.A.R. 28-31-4(g)(4)/40 CFR 265.52(e)** ☒ ☐
- f. Does the plan include an evacuation plan for facility personnel that describes signals and evacuation routes? **K.A.R. 28-31-4(g)(4)/40 CFR 265.52(f)** ☒ ☐
- g. Have copies of the plan and any revisions been provided to the police and fire departments, hospitals, and any emergency response agency that may respond to



an emergency? **K.A.R. 28-31-4(g)(4)/40 CFR 265.53(b)**

☒ ☐

- h. If implementation of the plan has been required at the facility, did the generator submit a written report on the incident to the KDHE within 15 days after the incident?

**K.A.R. 28-31-4(g)(4)/40 CFR 265.56(j)**

☒ ☐ ☐

**Contingency Plan Requirements:**

☒ **Compliance**

☐ **Non-Compliance**

☐ **NA**

**(If EPA generator, stop here.)**

V# = Violation Number

GENLIST06-02-04.wpd: Generator Checklist Revised June 2, 2004

**Additional Information and Conclusions:**

Other items:

**SUBPART C  
USED OIL GENERATOR  
COMPLIANCE INSPECTION CHECKLIST**

	Off-Spec Used Oil	On-Spec Used Oil	Oil Filters
Types of Oils: (i.e. motor oil, cooling oil, cutting oil, compressor oil)	Compressor Oil		
Amount generated per month:	< 5 gallons		
Amount received from off-site sources:	None		
Amount presently in storage:	2, 55-gallon drums		
Accumulation time:	Unknown		
Present disposal methods:	Safety-Kleen		
Name of UO Transporter	Safety-Kleen		

**YES NO NA V#**

1. If the generator mixes hazardous waste with used oil without managing the mixture as hazardous waste, does the facility fall under the SQG exemption?  
**K.A.R. 28-31-4(p)** ☐ ☐ ☒
  
2. If the generator stores used oil on-site:
  - a. Is the storage unit(s) in good condition? **KAR 28-31-16/40 CFR 279.22(a)** ☒ ☐ ☐
  - b. Is the storage unit(s) free from leaks? **KAR 28-31-16/40 CFR 279.22(b)** ☒ ☐ ☐
  - c. Is the storage unit(s) and/or fill pipe(s) clearly labeled with the words "USED OIL?" **KAR 28-31-16/40 CFR 279.22(c)** (If storage unit(s) are labeled "Waste Oil", simply make a comment that they should be re-labeled "Used Oil") ☐ ☒ ☐ 7
  
3. If there has been a release of Used Oil:
  - a. Was the leak stopped? **KAR 28-31-16/40 CFR 279.22(d)(1)** ☐ ☐ ☒
  - b. Was the release contained? **KAR 28-31-16/40 CFR 279.22(d)(2)** ☐ ☐ ☒
  - c. Was the release cleaned-up and managed properly?  
**KAR 28-31-16/40 CFR 279.22(d)(3)** ☐ ☐ ☒
  - d. If necessary, was the storage unit repaired or replaced?  
**KAR 28-31-16/40 CFR 279.22(d)(4)** ☐ ☐ ☒

YES NO NA V#

4. If the generator burns used oil on-site:
- Does generator burn only used oil that the generator/operator generates or used oil received from household do-it-yourself used oil generators, or used oil from any source that has been determined to be on-spec?  
**KAR 28-31-16/40 CFR 279.23(a)** ☐ ☒ ☐
  - Is the space heater designed to have a maximum capacity of not more than 0.5 million Btu per hour? **KAR 28-31-16/40 CFR 279.23(b)** ☐ ☐ ☒
  - Are the combustion gases from the space heater vented to the ambient air? **KAR 28-31-16/40 CFR, 279.23(c)** ☐ ☐ ☒
5. If the generator self-transportes used oil to an approved collection site or to an aggregate collection site owned by the generator
- Does the generator transport used oil in a vehicle owned by the generator or an employee of the generator? **KAR 28-31-16/40 CFR 279.24(a)(1) or 40 CFR 279.24(b)(1)** ☐ ☐ ☒
  - Does the generator transport no more than 55 gallons of used oil at any time? **KAR 28-31-16/40 CFR 279.24(a)(2) or 40 CFR 279.24(b)(2)** ☐ ☐ ☒

**NOTE: IF NO TO QUESTION 5-a OR 5-b, COMPLETE USED OIL TRANSPORTER CHECKLIST.**

6. If the generator has their used oil reclaimed under a tolling (contractual) agreement?
- Does the tolling (contractual) agreement indicate the type of used oil and the frequency of shipments? **KAR 28-31-16/40 CFR, 279.24(c)(1)** ☐ ☐ ☒
  - Is the vehicle used to transport the used oil to the processing/re-refining facility and to deliver recycled used oil back to the generator owned and operated by the used oil processor/re-refiner?  
**KAR 28-31-16/40 CFR, 279.24(c)(2)** ☐ ☐ ☒
  - Is reclaimed oil returned to the generator? **KAR 28-31-16/40 CFR, 279.24(c)(3)** ☐ ☐ ☒
7. Does the generator use a used oil transporter who is registered in Kansas?  
Name of Transporter: \_\_\_\_\_ ☐ ☐ ☒

**Used Oil Generator Requirements:**

☐ Compliance ☒ Non-Compliance ☐ N/A

V# = Violation Number

Used Oil Generator 09-29-03.wpd: Checklist Revised September 29, 2003

# **RCRA Compliance Evaluation Inspection Summary**

**Robbie Manufacturing**  
10810 Mid America Avenue  
Lenexa, KS 66219

**EPA ID No.:** KSD054080148

**Inspection Date:** June 29, 2004

**KDHE Inspectors:** Rebecca Wenner, BEFS

## **1.0 INTRODUCTION**

On June 29, 2004, I conducted a routine compliance inspection at Robbie Manufacturing (Robbie) to determine compliance with state and federal hazardous waste regulations. There are about 130 employees at this facility. The facility operates in three shifts, 24 hours a day, 7 days a week.

I arrived at the facility at about 2:00 pm on June 29, 2004 and met with Mr. George Jones, who accompanied me throughout the inspection. I presented my credentials and explained the purpose and procedures for the inspection.

This facility has not been previously inspected by KDHE. A map of the facility is included in Attachment 1. All photographs referenced in this summary are located in the Appendix.

## **2.0 FACILITY INSPECTION**

This inspection covered points of waste generation, storage areas, and included a review of related paperwork and documents.

This facility is an EPA generator of hazardous waste and is located in an industrial park in Lenexa. The facility is contained in one large building, and all facility activities take place indoors. The majority of space inside the facility is warehouse. There are eight press machines at the facility, with four running during a typical shift. There is a mixing room where inks are mixed. No waste is generated in the mixing room except solvent contaminated rags. Ink that is mixed incorrectly in this room is put into other batches to make other colors, typically black.

There is also a clean-up room at the facility, which is where 5-gallon buckets are submerged in solvent to clean them. There is a large solvent tank located in this room used for this purpose. 55-gallon drums are also used in this room to accumulate waste solvent used for cleaning at the various presses. There is also a 55-gallon drum located in this room used to accumulate waste ink and solvent when ink from the presses cannot be used and must be disposed. Attachment B provides the MSDS sheets for the three most common types of solvent used at the facility, with the predominant ingredient being n-propyl acetate. The facility has a small still (capacity of about 15 gallons) located outside this room near the presses. The still is run about once or twice a week and a log is kept of its operations. A small amount of still bottoms is generated from this process and is disposed as a hazardous waste. There seemed to be some confusion about whether the still bottoms are combined with the waste ink or

separated into a different drum, at the time of the inspection the still bottoms were in an open 5-gallon bucket.

The less than 90 day storage area is located near press V8, which uses 300-gallon totes rather than small containers to collect waste solvent. At the time of the inspection there was one tote being used to collect waste solvent. The tote was correctly closed, labeled, and dated. There were also two 55-gallon drums of waste solvent located in this area. Neither of these drums were labeled or dated. Weekly inspections have been conducted on this area since August 2003, when Mr. Jones said Trinty Environmental was hired to do some hazardous waste management training at the facility and they explained about the necessity for inspections.

There is also a small maintenance shop inside the facility. Some cutting and welding is conducted in the maintenance area, but the only waste generated is used oil.

No hazardous waste is generated in the remaining areas of the facility, including the perforation area, the bag making area, and the warehouse.

I conducted an exit interview with Mr. Jones after completing the inspection. I described each violation and how it could be corrected. I gave the facility 30 days to provide me with a written response describing their corrective actions.

### 3.0 VIOLATIONS

Violation1 Failure to mark the accumulation start date on 32 containers of hazardous waste in violation of Kansas Administrative Regulation (K.A.R.) 28-31-4(g)(2). Twenty-five 5-gallon containers were located outside the clean-up room next to a press. Mr. Jones was not sure of the contents of these containers and so we asked Mr. Eric Varner. Mr. Varner explained that these containers have waste solvent in them because the drums in the clean-up room were full and had not been moved to the storage area. Four of these 5-gallon containers were open, including one that actually contained still bottoms, not waste solvent. These containers are shown in Photos 1 and 2.

There were three 55-gallon drums of hazardous waste located in the clean-up room at the time of the inspection (Photos 4, 5, and 6). Two of these contained waste solvent, and the third contained waste ink and solvent. The waste ink/solvent drum had a lid resting on it, but was not secured with a ring, and the drum was not secured to the wall (it is a liquid waste). None of these containers had an accumulation start date and none was labeled hazardous waste. There was also one 5-gallon container of waste solvent that was not labeled, nor was it dated. The photograph of this container was too dark to use.

The less than 90 day storage area had one 300-gallon tote that was correctly labeled and dated (6/22/04) (Photo 6). There were also two 55-gallon drums of waste solvent that were not labeled "Hazardous Waste" and were not dated (Photo 7).

One drum of waste solvent that was about 1/3 full was located inside, near the dock of the facility (Photo 8). This waste solvent was recovered when the rags being taken off-



site for laundering were centrifuged by the laundry company. This drum was closed, but was not correctly labeled nor was it dated. This drum was inadvertently not included on the original NONC form and was added in a letter dated June 30, 2004.

Violation 2 Failure to mark 32 containers with the words "Hazardous Waste" in violation of K.A.R. 28-31-4(g)(3). This violation involved all of the same containers as Violation 1.

Violation 3 Failure to close five (5) containers of hazardous waste in violation of K.A.R. 28-31-4(g)(1)(A). One 55-gallon drum in the clean-up room and four 5-gallon containers located just outside the clean-up room were open (See Violation 1 for details).

Violation 4 Failure to conduct weekly inspection before August 20, 2003 on the less than 90 day storage area, and failure to conduct any inspections on containers in the clean-up room in violation of K.A.R. 28-31-4(g)(1)(A). Prior to August 20, 2003, no weekly inspections were conducted at this facility. Prior to that time, the facility was unaware of the requirement to conduct these inspections according to Mr. Jones. Mr. Jones stated that at that time, a contractor, Trinity Environmental was hired to do some training for the facility on hazardous waste management.

Mr. Jones stated that the only weekly inspections being conducted were on the less than 90 day storage area, and that they did not include the clean-up room. Mr. Jones said that he considers the drums in the clean-up room to be satellite containers. I told Mr. Jones that because these drums are used to store waste from many different points of generation (press lines) and that they are not at or near the point of generation nor under the control of an operator, that they could not be considered satellite containers. I also explained that the containers being emptied into these drums would be considered satellite containers and that it is not permissible to empty one satellite container into another satellite container.

I did not cite the area outside the clean-up room where the twenty-five 5-gallon containers were located for a violation because Mr. Varner indicated that they had been located in the clean-up room until the last day or two when he began cleaning up the room and moved them.

Violation 5 Failure to close eight (8) satellite accumulation containers in violation of K.A.R. 28-31-4(j)(1)(A). Two types of satellite accumulation containers are used at the facility. One type is used to collect drips from under press lines, sometimes under a drain on an actual drip pan. These containers collect the drips of both waste solvent and ink and are emptied into the 55-gallon container in the clean-up room. Four of these were in use (had waste) at the time of the inspection. Three can be seen in Photos 9, 13, and 14. The fourth container did not get photographed.

The second type of satellite accumulation container used at the facility is a container used to collect drippings from solvent distribution containers used at each press line. At the time of the inspection, there were four of these in use (containing waste solvent) as shown in photos 10, 11, 12, and 15. The solvent is run out of the distribution cans onto rags and overflow falls into the satellite container. The rags are then rung out with the excess falling into the satellite container. Rags are occasionally rinsed in the buckets as well. According to Mr. Jones, all of these containers are emptied into 55-gallon drums in the clean-up room when they become full. Some of these containers had lids placed over them, but none of them were appropriately closed.

- Violation 6      Failure to label eight (8) satellite accumulation containers with the words "Hazardous Waste" in violation of K.A.R. 28-31-4(j)(1)(B). Same containers as Violation 5.
- Violation 7      Failure to label two 55-gallon drums of used oil with the words "Used Oil" in violation of K.A.R. 28-31-16. This violation was added in a letter dated June 30, 2004. It was inadvertently left off the original NONC form. The violation was for two drums of used oil located outside the maintenance shop. The drums were not labeled in any way to indicate their contents (Photo 16).

#### **4.0      APPENDIX AND ATTACHMENTS**

- Appendix      Photographic Log  
Attachment 1   Facility Map  
Attachment 2   MSDS Sheets for solvents.

**APPENDIX 1**  
**PHOTOGRAPHIC LOG**

## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



**Photo Number: 1**

**Date: 6/29/04**

**Direction: South**

**Description:** A view of twenty-four 5-gallon containers of waste solvent and one 5-gallon container of still bottoms that were not correctly labeled (Violation 2) or dated (Violation 1), and four were open (Violation 3). The stacked containers on the left side of the photo are empty.



**Photo Number: 2**

**Date: 6/29/04**

**Direction: North**

**Description:** Another view of the containers in photo 1.



## PHOTOGRAPHIC LOG

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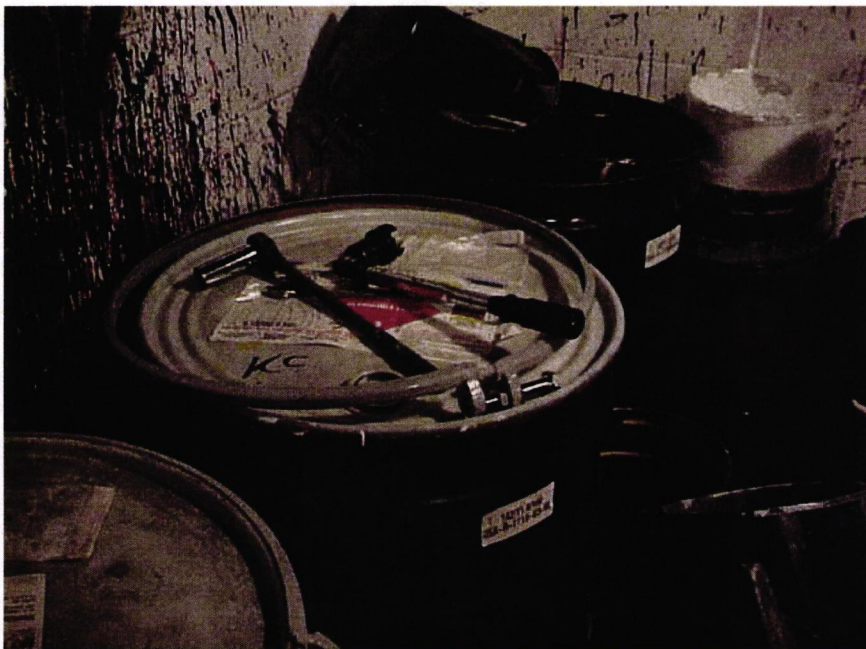


**Photo Number: 3**

**Date: 6/29/04**

**Direction: Northwest**

**Description:** A view of two of the drums located in the clean-up room. The drum on the left contains waste solvent, the drum on the right contains waste solvent and waste ink. Neither of these containers was properly labeled (Violation 2) or dated (Violation 1).



**Photo Number: 4**

**Date: 6/29/04**

**Direction: Northwest**

**Description:** A closer view of the drum on the right in photo 3. Note that this container was not closed (Violation 3).



## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

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Photos taken by Rebecca Wenner using Digital Camera



**Photo Number: 5**

**Date: 6/29/04**

**Direction: Southwest**

**Description:** A view of the third drum located in the clean-up room. This drum was neither properly labeled (Violation 2), nor was it dated (Violation 1). The drum contained waste solvent.



**Photo Number: 6**

**Date: 6/29/04**

**Direction: North**

**Description:** A view of the 300-gallon tote located in the less than 90 day storage area. The white label says "Hazardous Waste" and has an accumulation start date of June 22, 2004.



## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



**Photo Number: 7**

**Date: 6/29/04**

**Direction:**

Southwest

**Description: A**

view of the two 55-gallon drums of waste solvent located in the less than 90 day storage area. Neither of these drums was labeled "Hazardous Waste" (Violation 2) and neither was dated (Violation 1).



**Photo Number: 8**

**Date: 6/29/04**

**Direction:**

Northwest

**Description: A**

view of the 55-gallon drum (1/3 full) of waste solvent centrifuged from rags prior to the laundry taking the rags off-site. This drum was not labeled "Hazardous Waste" (Violation 2) and was not dated (Violation 1).



## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



**Photo Number: 9**

**Date: 6/29/04**

**Direction: Southeast**

**Description:** A view of a satellite container located under a drip pan the press line closest to the mixing room. Note that this container was open (Violation 5) and not labeled (Violation 6).



**Photo Number: 10**

**Date: 6/29/04**

**Direction: Northwest**

**Description:** A view of a 5-gallon bucket (on the floor) being used to collect drippings from the solvent distribution container located on the table. The operator at this line also said that rags are occasionally rung out into the bucket. This container was not labeled or dated (Violations 5 and 6).



## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



**Photo Number: 11**

**Date: 6/29/04**

**Direction: Northwest**

**Description: A view of the contents of the bucket shown in photo 10.**



**Photo Number: 12**

**Date: 6/29/04**

**Direction: East**

**Description: A view of another container (floor) at press line A6 that is used to catch drippings from the solvent distribution container located on the table. This container was not labeled or dated (Violations 5 and 6).**



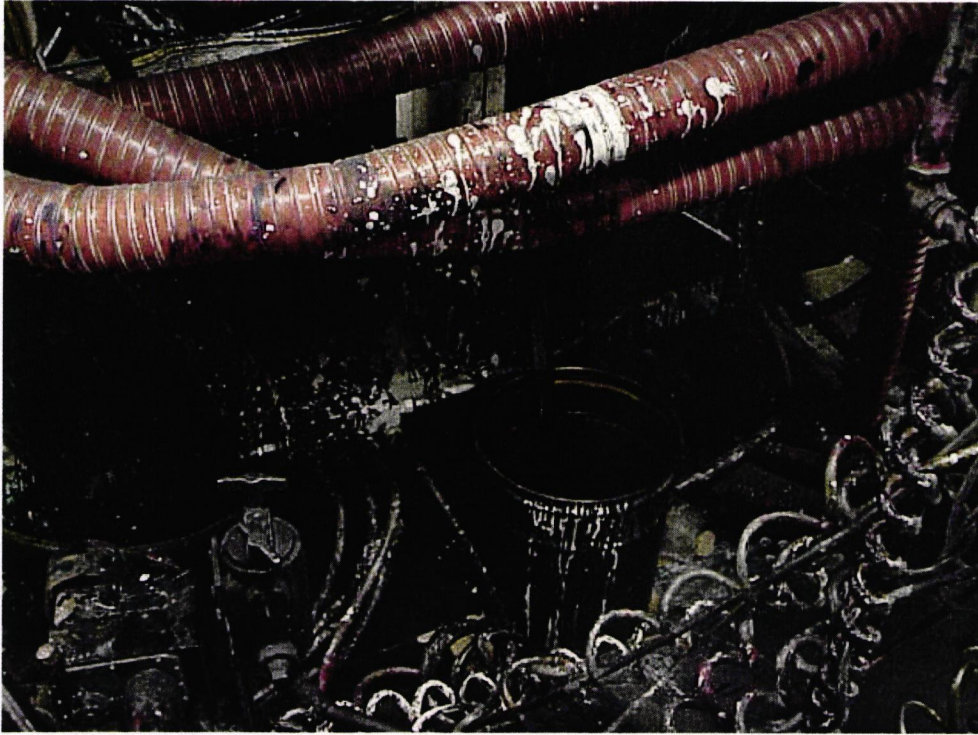
## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



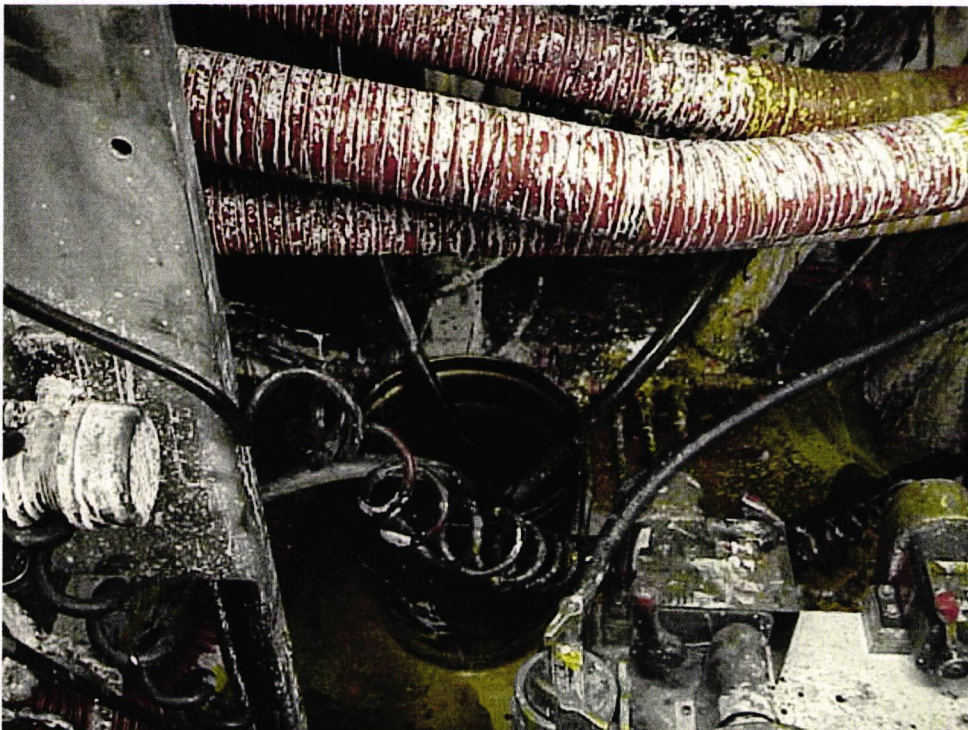
**Photo Number: 13**

**Date: 6/29/04**

**Direction: North**

**Description:**

Another container under a drip pan on press line A6 used to collect waste solvent and waste ink from the line. This container was not labeled or dated (Violations 5 and 6). This machine had two of these buckets. The second is shown in the next photo.



**Photo Number:**

**14**

**Date: 6/29/04**

**Direction: North**

**Description:**

The second drip container on line A6. This container was not labeled or dated (Violations 5 and 6).



## **PHOTOGRAPHIC LOG**

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



**Photo Number: 15**

**Date: 6/29/04**

**Direction: North**

**Description:** Two 5-gallon buckets (floor) used to collect drips from the two solvent distribution cans located on the table. The cans appeared to contain the same solvent and it was not clear why there were two at this location. Neither of these was labeled or dated (Violations 5 and 6).



**Photo Number: 16**

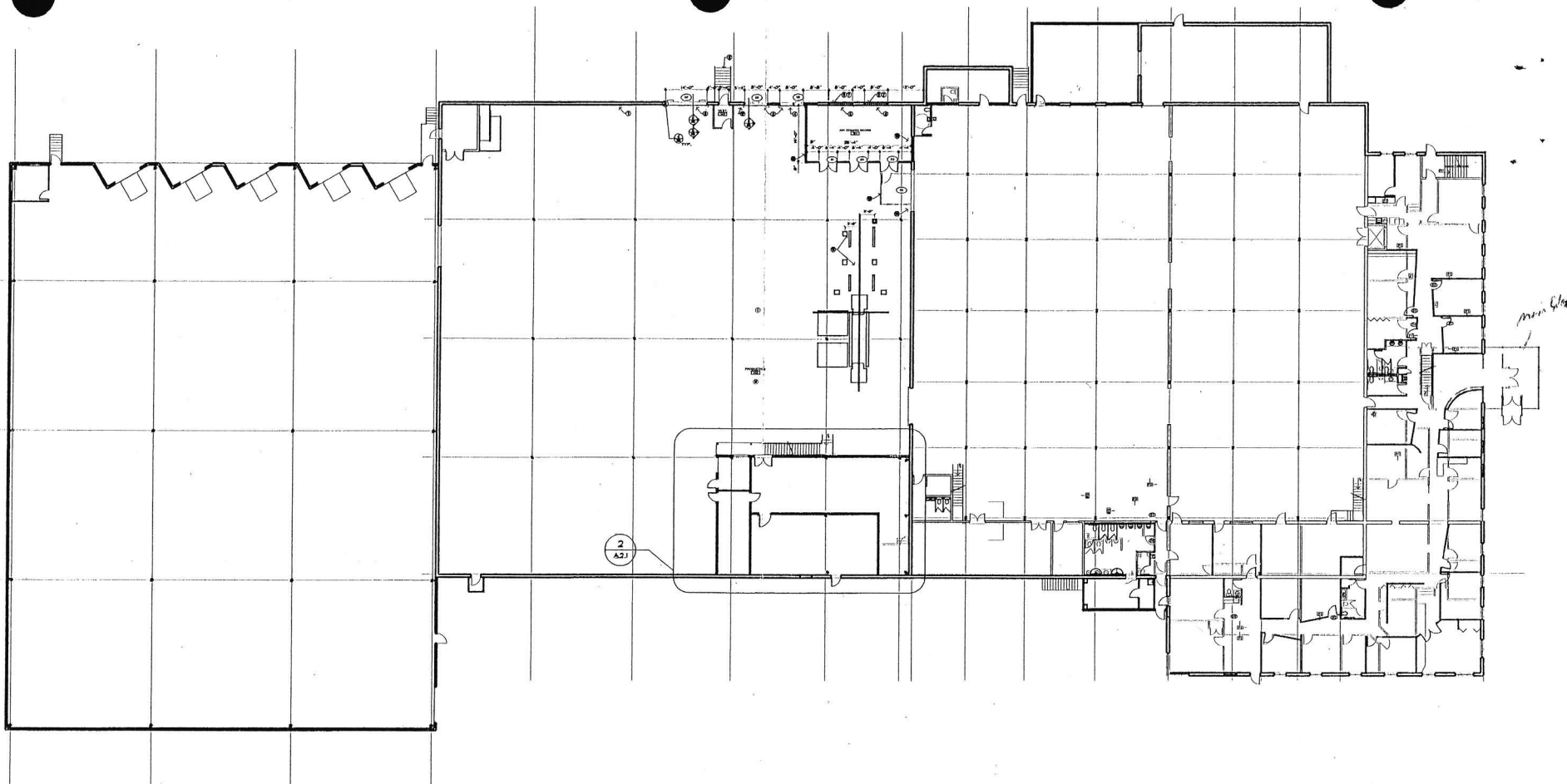
**Date: 6/29/04**

**Direction: East**

**Description:** A view of the two 55-gallon drums of used oil. Neither of these was labeled as to the contents (Violation 7).

**ATTACHMENT 1**

**FACILITY MAP**



# 3 KEY PLAN

SCALE: 1/32" = 1'-0"



NORTH

**ATTACHMENT 2**

**MSDS SHEETS FOR SOLVENTS**





# Material Safety Data Sheet

NFPA 	Revision Date 12-23-94, 06-20-96	Protective Clothing 
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## Section I Chemical Product and Company Identification

Common Name/ Trade Name	<b>Barsol A-2142</b>	Code	60018620
Supplier	Barton Solvents, Inc. 1920 N.E. Broadway, P.O. Box 221 Des Moines, IA 50301	CAS#	Mixture
Synonym	Not available.	In case of Emergency	CHEMTREC (800) 424-9300
Chemical Name	Not applicable.		
Chemical Family	Solvent.		
Chemical Formula	Not applicable.		
Manufacturer	Available upon request	Material Uses	Not available.

## Section II First Aid Measures

Eye Contact	Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. DO NOT use an eye ointment. Seek medical attention.
Skin Contact	If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
Hazardous Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.
Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
Hazardous Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.
Ingestion	If swallowed, INDUCE VOMITING immediately as directed by medical personnel. NEVER give an unconscious person anything to ingest. Seek medical attention.
Hazardous Ingestion	INDUCE VOMITING by sticking finger in throat. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Continued on Next Page



**Barsol A-2142**

Page Number: 2

**Section III: Composition and Information on Ingredients**

Name	CAS #	% by Volume	TLV/PEL	LC <sub>50</sub> /LD <sub>50</sub>
Propyl alcohol	71-23-8	> 9	TWA: 200 (ppm) from OSHA/NIOSH TWA: 200 (ppm) from ACGIH	ORAL (LD50) mg/kg: Acute: 1870 (Rat.). DERMAL (LD50) mg/kg: Acute: 5040 (Rabbit).
Propyl acetate	109-60-4	> 9	TWA: 200 (ppm) from ACGIH	ORAL (LD50) mg/kg: Acute: 9370 (Rat.).

**Section IV: Hazards Identification**

Potential Acute Health Effects	Very dangerous in case of eye contact (irritant). Slightly dangerous to dangerous in case of skin contact (irritant, permeator), of ingestion, of inhalation. This product is an eye irritant. This product may irritate eyes and skin upon contact. Inflammation of the eye is characterized by redness, watering, and itching.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Classified A5 by ACGIH, 4 by IARC [ Propyl alcohol]. Classified A5 by ACGIH, 4 by IARC [ Propyl acetate]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. Toxicity of the product to the reproductive system: Not available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure is not known to aggravate medical condition.

**Section V: Fire and Explosion Data**

Flammability of the Product	Flammable.
Auto-Ignition Temperature	371°C (699.8°F) based on data for Propyl alcohol.
Flash Points	CLOSED CUP: (Tagliabue.) 14.44°C (58°F) (Propyl acetate).
Flammable Limits	LOWER: 2.1% ( Propyl alcohol) UPPER: 13.5% ( Propyl alcohol)
Products of Combustion	These products are carbon oxides (CO, CO <sub>2</sub> ).
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames and sparks, of heat, of oxidizing materials.
Fire Fighting Media and Instructions	Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemicals, CO <sub>2</sub> , alcohol foam or water spray. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Special Remarks on Fire Hazards	Explosive in the form of vapor when exposed to heat or flame. Vapor may travel considerable distance to source of ignition and flash back. When heated to decomposition it emits acrid smoke and irritating fumes. (Propyl alcohol)
Special Remarks on Explosion Hazards	No additional remark.

**Section VI: Accidental Release Measures**

Small Spill	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container.
Large Spill	Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition.

Continued on Next Page

**Section VII: Handling and Storage**

<b>Precautions</b>	Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Avoid contact with skin and eyes. Keep away from incompatibles as oxidizing agents, acids, alkalis, moisture.
<b>Storage</b>	Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material.

**Section VIII: Exposure Controls/Personal Protection**

<b>Engineering Controls</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.
<b>Personal Protection</b>	Splash goggles. Lab coat. Vapor respirator. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Gloves (impervious). Wear appropriate respirator when ventilation is inadequate.
<b>Personal Protection in Case of a Large Spill</b>	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Section IX: Physical and Chemical Properties**

<b>Physical state and appearance</b>	Liquid.	<b>Odor</b>	Alcohol.
<b>Molecular Weight</b>	Not applicable.	<b>Taste</b>	Not available.
<b>pH (1% soln/water)</b>	Neutral.	<b>Color</b>	Clear
<b>Boiling Point</b>	97.22°C (207°F) based on data for: Propyl alcohol. Weighted average: 97.88°C (208.2°F)		
<b>Melting Point</b>	Not available.		
<b>Critical Temperature</b>	Not available.		
<b>Specific Gravity</b>	Weighted average: 0.81 (Water = 1)		
<b>Vapor Pressure</b>	Weighted average: 16.41 mm of Hg (@ 20°C)		
<b>Vapor Density</b>	Weighted average: 2.29 (Air = 1)		
<b>Volatility</b>	100% (v/v) Weighted average. 100% (w/w). Weighted average.		
<b>Odor Threshold</b>	Not available.		
<b>Evaporation rate</b>	2.3 based on data for: Propyl acetate. Weighted average: 1.2 [Butyl acetate.]		
<b>Viscosity</b>	Not available.		
<b>Solubility</b>	Easily soluble in cold water, hot water, methanol, diethyl ether.		

**Section X: Stability and Reactivity Data**

<b>Stability</b>	The product is stable.
<b>Instability Temperature</b>	Not available.
<b>Conditions of Instability</b>	No additional remark.
<b>Incompatibility with various substances</b>	Slightly reactive to reactive with oxidizing agents, acids, alkalis, moisture.
<b>Corrosivity</b>	Non-corrosive in presence of glass.
<b>Special Remarks on Reactivity</b>	May undergo autopolymerization. (Propyl acetate)

Continued on Next Page

F10

**Barsol A-2142**

Page Number: 4

Special Remarks on  
Corrosivity

No additional remark.

**Section XI. Toxicological Information**

Routes of Entry

Ingestion. Skin contact. Inhalation.

Toxicity to Animals

Acute oral toxicity (LD50): 2125 mg/kg (Rat.) (Calculated value for the mixture).  
Acute dermal toxicity (LD50): > 5000 mg/kg (Rabbit.) (Propyl alcohol).

Chronic Effects on Humans

**CARCINOGENIC EFFECTS:** Classified A5 by ACGIH, 4 by IARC [ Propyl alcohol]. Classified A5 by ACGIH, 4 by IARC [ Propyl acetate].  
Toxicity of the product to the reproductive system: Not available.

Other Toxic Effects on Humans

Very dangerous in case of eye contact (irritant).  
Slightly dangerous to dangerous in case of skin contact (irritant, permeator), of ingestion, of inhalation.

Special Remarks on  
Toxicity to Animals

No additional remark.

Special Remarks on  
Chronic Effects on Humans

No additional remark.

Special Remarks on  
Other Toxic Effects on Humans

Exposure can cause nausea, headache and vomiting. (Propyl alcohol)

**Section XII. Ecological Information**

Ecotoxicity

Not available.

BOD5 and COD

Not available.

Products of Biodegradation

These products are carbon oxides (CO, CO2).

Toxicity of the Products  
of Biodegradation

The products of degradation are less toxic than the product itself.

Special Remarks on the  
Products of Biodegradation

No additional remark.

**Section XIII. Disposal Considerations**

Waste Disposal

Recycle to process, if possible. Consult your local or regional authorities.

**Section XIV. Transport Information**

DOT Classification

DOT CLASS 3: Flammable liquid.

PIN

Paint Related Material, 3, UN1263, II

Special Provisions for  
Transport

No additional remark.

DOT (Pictograms)



Continued on Next Page

F11

**Section XV: Other Regulatory Information and Pictograms****Federal and State Regulations**

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). Components present in this product at a level which could require reporting under the statute are:

NONE

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual report release of toxic chemicals that appear in 40 CFR 372 (used for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

NONE

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4.

Components present in this product at a level which could require reporting under the statute are:

NONE

**Other Classifications**

WHMIS (Canada) WHMIS CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

DSCL (EEC)

R36- Irritating to eyes.

**HMIS (U.S.A.)**

Health Hazard	2
Fire Hazard	3
Reactivity	0
Personal Protection	0

National Fire Protection Association (U.S.A.)

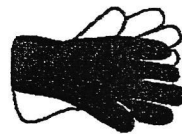
Health



Fire Hazard

Reactivity

Specific hazard

**Protective Clothing (Pictograms)****Section XVI: Other Information****References**

Not available.

**Other Special Considerations**

Format Change: 06-20-96

Validated by Barton Solvents, Inc. on 6/20/96.

Verified by Barton Solvents, Inc..

Printed 6/20/96.

Daytime Phone - (515) 265-7998

**Notice to Reader**

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.





UNION CARBIDE CORPORATION  
A Subsidiary of The Dow Chemical Company  
**MATERIAL SAFETY DATA SHEET**



**Product Name:** PROPYL ACETATE  
**MSDS#:** 1547

**Effective Date:** 06/05/2001  
**Page** 1 of 16

Union Carbide urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: 1) Notify its employees, agents, contractors and others whom it knows or believes will use this material of the information in this MSDS and any other information regarding hazards or safety; 2) Furnish this same information to each of its customers for the product; and 3) Request its customers to notify their employees, customers, and other users of the product of this information.

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

### 1.1 IDENTIFICATION

<b>Product Name</b>	PROPYL ACETATE
<b>Chemical Name</b>	n-Propyl Acetate
<b>Chemical Family</b>	Esters
<b>Formula</b>	CH <sub>3</sub> COO C <sub>3</sub> H <sub>7</sub>
<b>Synonym</b>	Acetic Acid, Propyl Ester

### 1.2 COMPANY IDENTIFICATION

Union Carbide Corporation  
A Subsidiary of The Dow Chemical Company  
39 Old Ridgebury Road  
Danbury, CT 06817-0001

### 1.3 EMERGENCY TELEPHONE NUMBER

**24 hours a day: CHEMTREC 1-800-424-9300.**

Number for non-emergency questions concerning MSDS (732) 563-5522  
Additional information on this product may be obtained by calling the Union Carbide Corporation Customer Service Center at 1-800-568-4000.

# MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 2 of 16

## 2. COMPOSITION INFORMATION

Component	CAS #	Amount (%W/W)
Propyl acetate	109-60-4	100 %
Propanol	71-23-8	<= 1.2458%

## 3. HAZARDS IDENTIFICATION

### 3.1 EMERGENCY OVERVIEW

Appearance      Transparent colorless

Physical State      Liquid

Odor      Mild nonresidual

Hazards of product      WARNING!      FLAMMABLE.  
HARMFUL IF INHALED.  
CAUSES EYE IRRITATION.  
STATIC IGNITION HAZARD CAN RESULT FROM  
HANDLING AND USE.  
  
MAY CAUSE DIZZINESS AND DROWSINESS.

### 3.2 POTENTIAL HEALTH EFFECTS

#### Effects of Single Acute Overexposure

**Inhalation** Causes irritation of the respiratory tract, experienced as nasal discomfort and discharge, with chest pain and coughing. May produce signs and symptoms of toxicity similar to those described for swallowing.

H2



# **MATERIAL SAFETY DATA SHEET**

**Product Name:** PROPYL ACETATE  
**MSDS#:** 1547

**Effective Date:** 06/05/2001  
**Page** 3 of 16

**Eye Contact** Excess redness and swelling of the conjunctiva may occur. Causes irritation, experienced as stinging and discomfort or pain.

**Skin Contact** Brief contact is not irritating. Prolonged or repeated contact may cause defatting and drying of the skin.

**Skin Absorption** No evidence of harmful effects from available information.

**Swallowing** Moderately toxic. May cause abdominal discomfort, nausea, vomiting, and diarrhea. Dizziness and drowsiness may occur.

## **Chronic, Prolonged or Repeated Overexposure**

**Effects of Repeated Overexposure** Repeated overexposure may cause liver damage.

**Other Effects of Overexposure** None currently known.

## **Medical Conditions Aggravated by Exposure**

Skin contact may aggravate an existing dermatitis. Inhalation of material may aggravate asthma and inflammatory or fibrotic pulmonary disease.

## **3.3 POTENTIAL ENVIRONMENTAL EFFECTS**

See Section 12 for Ecological Information.

# **4. FIRST AID PROCEDURES**

## **4.1 INHALATION**

Remove to fresh air. Give artificial respiration if not breathing. If breathing is difficult, oxygen may be given by qualified personnel. Obtain medical attention.

## **4.2 EYE CONTACT**

Immediately flush eyes with water and continue washing for several minutes. Remove contact lenses, if worn. Obtain medical attention.

## **4.3 SKIN CONTACT**

Remove contaminated clothing. Wash skin with soap and water. Obtain medical attention if irritation persists. Wash clothing before reuse.

## **4.4 SWALLOWING**

# MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 4 of 16

If patient is fully conscious, give two glasses of water. Induce vomiting. This should be done only by medical or experienced first-aid personnel. Obtain medical attention.

## 4.5 NOTES TO PHYSICIAN

There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition of the patient.

## 5. FIRE FIGHTING MEASURES

### 5.1 FLAMMABLE PROPERTIES

Flash Point - Closed Cup: *Tag Closed Cup ASTM D 56* 14 °C 58 °F

Flash Point - Open Cup: *Tag Open Cup ASTM D 1310* 18 °C 65 °F

Autoignition Temperature: *Not currently available.*

#### Flammable Limits In Air:

Lower	1.7 %(V)	100 °F
Upper	8.0 %(V)	

### 5.2 EXTINGUISHING MEDIA

Extinguish fires with water spray or apply alcohol-type or all-purpose-type foam by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical media for small fires.

### 5.3 EXTINGUISHING MEDIA TO AVOID

No information currently available.

### 5.4 SPECIAL FIRE FIGHTING PROCEDURES

Use water spray to cool fire-exposed containers and structures. Use water spray to disperse vapors; re-ignition is possible.

### 5.5 SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Use self-contained breathing apparatus and protective clothing.

### 5.6 UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapors form from this product and may travel or be moved by air currents and ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from product handling point.

Vapors from this material may settle in low or confined areas or travel a long distance to an ignition source and flash back explosively.

# **MATERIAL SAFETY DATA SHEET**

**Product Name:** PROPYL ACETATE  
**MSDS#:** 1547

**Effective Date:** 06/05/2001  
**Page** 5 of 16

Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association Document NFPA 77.

Avoid splash filling of containers when handling this flammable liquid because static electricity may be generated. Use proper bonding and grounding during product transfer as described in National Fire Protection Association Document NFPA 77.

See Section 8.3 - Engineering Controls

|| This material may produce a floating fire hazard.

## **5.7 HAZARDOUS COMBUSTION PRODUCTS**

Burning can produce the following products: Carbon monoxide and/or carbon dioxide. Carbon monoxide is highly toxic if inhaled. Carbon dioxide in sufficient concentrations can act as an asphyxiant.

## **6. ACCIDENTAL RELEASE MEASURES**

### **Steps to be Taken if Material is Released or Spilled:**

Extinguish and do not turn on any ignition source until the area is determined to be free from fire or explosion hazard. Small spills can be flushed with large amounts of water; larger spills should be collected for disposal.

**Personal Precautions:** Wear suitable protective equipment. See Section 8.2 - Personal Protection.

**Environmental Precautions:** This product may be toxic to fish; avoid discharge to natural waters.

## **7. HANDLING AND STORAGE**

### **7.1 HANDLING**

#### **General Handling**

Keep away from heat, sparks and flame.

Avoid breathing vapor.

Avoid contact with eyes.

Electrically bond and ground all containers, personnel and equipment before transfer or use of material.

Keep container closed.

Use with adequate ventilation.

H5

# MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 6 of 16

Vapor forms from this product and may travel or be moved by air currents and ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from product handling point and may flash back explosively. Wash thoroughly after handling.

FOR INDUSTRY USE ONLY.

## Ventilation

General (mechanical) room ventilation is expected to be satisfactory where this product is stored and handled in closed equipment. Special, local ventilation is needed at points where vapor can be expected to escape to the workplace air.

## Other Precautions

Vapor may settle in low or confined areas, or travel a long distance to an ignition source and flash back explosively.

## 7.2 STORAGE

Store in accordance with good industrial practices. Storage information may be obtained from product-specific Union Carbide Storage and Handling Guides, or by calling a Union Carbide Customer Service Representative.

# 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

## 8.1 EXPOSURE LIMITS

Component	Exposure Limits	Skin	Form
Propyl acetate	200 ppm TWA8 ACGIH		
	835 mg/m3 TWA8 ACGIH		
	1040 mg/m3 STEL ACGIH		
	250 ppm STEL ACGIH		
	200 ppm TWA8 OSHA		
	840 mg/m3 TWA8 OSHA		
Propanol	1050 mg/m3 STEL OSHA-Vacated		
	250 ppm STEL OSHA-Vacated		
	200 ppm TWA8 ACGIH	Yes	
	492 mg/m3 TWA8 ACGIH	Yes	
	250 ppm STEL ACGIH	Yes	
	614 mg/m3 STEL ACGIH	Yes	
	200 ppm TWA8 OSHA		
	500 mg/m3 TWA8 OSHA		
	250 ppm STEL OSHA-Vacated		

# MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 7 of 16

625 mg/m3 STEL OSHA-  
Vacated

*In the Exposure Limits Chart above, if there is no specific qualifier (i.e., Aerosol) listed in the Form Column for a particular limit, the listed limit includes all airborne forms of the substance that can be inhaled.*

*A "Yes" in the Skin Column indicates a potential significant contribution to overall exposure by the cutaneous (skin) route, including mucous membranes and the eyes, either by contact with vapors or by direct skin contact with the substance. A "Blank" in the Skin Column indicates that exposure by the cutaneous (skin) route is not a potential significant contributor to overall exposure.*

## 8.2 PERSONAL PROTECTION

**Respiratory Protection:** Use self-contained breathing apparatus in high vapor concentrations.

**Ventilation:** General (mechanical) room ventilation is expected to be satisfactory where this product is stored and handled in closed equipment. Special, local ventilation is needed at points where vapor can be expected to escape to the workplace air.

**Eye Protection:** Monogoggles or faceshield

**Protective Gloves:** Butyl  
Polyvinyl chloride coated

**Other Protective Equipment:** Chemical apron  
Eye Bath, Safety Shower

## 8.3 ENGINEERING CONTROLS

PROCESS HAZARD: Sudden release of hot organic chemical vapor or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into hot equipment under a vacuum, may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product in elevated-temperature processes should be thoroughly evaluated to establish and maintain safe operating conditions. Further information is available in a technical bulletin entitled "Ignition Hazards of Organic Chemical Vapor."



# MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 8 of 16

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid

Appearance: Transparent colorless

pH: *Not currently available.*

Solubility in Water (by weight): 20 °C 2.0 %

Odor: Mild nonresidual

Flash Point - Closed Cup: Tag Closed Cup ASTM D 56 14 °C 58 °F

Flash Point - Open Cup: Tag Open Cup ASTM D 1310 18 °C 65 °F

Percent Volatiles: 100 Wt%

Molecular Weight: 102.13 g/mol

Boiling Point (760 mmHg): 101.5 °C 214.7 °F

Freezing Point: -95.0 °C -139.0 °F

Specific Gravity (H2O = 1): 0.8883 20 °C / 20 °C

Vapor Pressure at 20°C: 3.3 kPa 25 mmHg

Vapor Density (air = 1): 3.5

Evaporation Rate (Butyl Acetate = 1): 2.75

Melting Point: *Not applicable.*

## 10. STABILITY AND REACTIVITY

10.1 STABILITY/INSTABILITY Stable

H8

## MATERIAL SAFETY DATA SHEET

**Product Name:** PROPYL ACETATE  
**MSDS#:** 1547

**Effective Date:** 06/05/2001  
**Page** 9 of 16

**Incompatible Materials:** Strong oxidizing agents. Nitric acid. Sodium hydroxide. Alkali metal hydroxides.

**10.2 HAZARDOUS POLYMERIZATION** Will not occur.

**10.3 INHIBITORS/STABILIZERS** Not applicable.

### **11. TOXICOLOGICAL INFORMATION**

#### **ACUTE TOXICITY**

##### **Peroral**

Rat; LD50 = 9.8 (7.5 - 12.9) ml/kg

**Major Signs:** sluggishness, labored breathing

**Gross Pathology:** abdominal viscera discolored, surface burns on organs adjacent to stomach

##### **Percutaneous**

Rabbit = 20 ml/kg; 24 h occluded.

**Mortality:** 0/4

**Major Signs:** necrosis at application site

##### **Inhalation**

Rat; 4 hour = 16000 ppm

**Mortality:** 6/6

**Major Signs:** anesthesia

**Gross Pathology:** lungs discolored

49

## MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 10 of 16

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### Inhalation

-Rat; 4 hour = 4000 ppm

**Mortality:** 0/6

**Major Signs:** decreased activity

**Gross Pathology:** lungs discolored

### Inhalation

Rat; 4 hour = 8000 ppm

**Mortality:** 4/6

**Major Signs:** anesthesia

**Gross Pathology:** lungs discolored

### Inhalation

dynamic generation of vapor Rat; 0.5 h (25000 - 30000) ppm; Room temperature

**Mortality:** 0/6

**Major Signs:** anesthesia within 15 minutes

**Gross Pathology:** lungs with petichial discoloration

### Inhalation

dynamic generation of vapor Rat; 1 h = 25000 - 30000 ppm; Room temperature

**Mortality:** 6/6

**Major Signs:** anesthesia within 15 minutes

**Gross Pathology:** lungs with petichial discoloration

## MATERIAL SAFETY DATA SHEET

**Product Name:** PROPYL ACETATE  
**MSDS#:** 1547

**Effective Date:** 06/05/2001  
**Page** 11 of 16

### IRRITATION

**Skin:** Rabbit; 24 h uncovered

**Results:** no irritation

**Eye:** Rabbit; 0.5 ml

**Results:** trace diffuse corneal injury

## 12. ECOLOGICAL INFORMATION

### 12.1 ENVIRONMENTAL FATE

**BOD (% Oxygen consumption)**

	Day 5	Day 10	Day 15	Day 20	Day 30
	62 %	80 %		72 %	

### 12.2 ECOTOXICITY

**Toxicity to Micro-organisms**

Bacterial/NA; 16 h; IC50

**Result value:** > 1000 mg/l

**Toxicity to Aquatic Invertebrates**

Daphnia; 48 h; LC50

**Result value:** 100.5 mg/l

**Toxicity to Fish**

Fathead Minnow; 96 h; LC50

**Result value:** 80 mg/l

### 12.3 FURTHER INFORMATION

Theoretical Oxygen Demand (THOD) - measured: 2.04 mg/mg

Theoretical Oxygen Demand (THOD) - calculated: 2.04 mg/mg

H1

# **MATERIAL SAFETY DATA SHEET**

**Product Name:** PROPYL ACETATE  
**MSDS#:** 1547

**Effective Date:** 06/05/2001  
**Page** 12 of 16

Octanol/Water Partition Coefficient - Measured: 1.24

## **13. DISPOSAL CONSIDERATIONS**

### **13.1 WASTE DISPOSAL METHOD**

Incinerate in a furnace where permitted under Federal, State, and local regulations. At very low concentrations in water, this product is biodegradable in a biological wastewater treatment plant. Dispose in accordance with all applicable Federal, State, and local environmental regulations. Empty containers should be recycled or disposed of through an approved waste management facility. Incinerate in a furnace where permitted under appropriate federal, provincial, and local regulations. At very low concentrations in water, this product is biodegradable in a biological wastewater treatment plant. Dispose in accordance with all applicable federal, provincial, and local environmental regulations. Empty containers should be recycled or disposed of through an approved waste management facility.

### **13.2 DISPOSAL CONSIDERATIONS**

See Section 13.1

*Disposal methods identified are for the product as sold. For proper disposal of used material, an assessment must be completed to determine the proper and permissible waste management options permissible under applicable rules, regulations and/or laws governing your location.*

## **14. TRANSPORT INFORMATION**

### **14.1 U.S. D.O.T.**

#### **NON-BULK**

**Proper Shipping Name :** N-PROPYL ACETATE

**Hazard Class :** 3

**ID Number :** UN1276

**Packing Group :** PG II

#### **BULK**

**Proper Shipping Name :** N-PROPYL ACETATE

**Hazard Class :** 3

**ID Number :** UN1276

**Packing Group :** PG II



# MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 13 of 16

*This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.*

## **15. REGULATORY INFORMATION**

### **15.1 FEDERAL/NATIONAL**

#### **COMPREHENSIVE ENVIRONMENTAL RESPONSE, COMPENSATION, AND LIABILITY ACT OF 1980 SECTION 103 (CERCLA)**

The following components of this product are specifically listed as hazardous substances in 40 CFR 302.4 (unlisted hazardous substances are not identified) and are present at levels which could require reporting:

Component	CAS #	Amount
n-Butyl acetate	123-86-4	<= 0.0500%
Ethyl acetate	141-78-6	<= 0.0500%
Isobutyl acetate	110-19-0	<= 0.0010%

#### **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EPCRA) SECTIONS 302 AND 304**

The following components of this product are listed as extremely hazardous substances in 40 CFR Part 355 and are present at levels which could require reporting and emergency planning:

None.

#### **SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EPCRA) SECTION 313**

The following components of this product are listed as toxic chemicals in 40 CFR 372.65 and are present at levels which could require reporting and customer notification under Section 313 and 40 CFR Part 372:

This product does not contain toxic chemicals at levels which require reporting under the statute.

# MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 14 of 16

## SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 TITLE III (EPCRA) SECTIONS 311 AND 312

Delayed (Chronic) Health Hazard : Yes  
Fire Hazard : Yes  
Immediate (Acute) Health Hazard : Yes  
Reactive Hazard : No  
Sudden Release of Pressure Hazard : No

## TOXIC SUBSTANCES CONTROL ACT (TSCA)

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

## EUROPEAN INVENTORY OF EXISTING COMMERCIAL CHEMICAL SUBSTANCES (EINECS)

The component of this product is on the EINECS inventory.

## CEPA - DOMESTIC SUBSTANCES LIST (DSL)

The component of this product is on the DSL or is exempt from reporting under the New Substances Notification Regulations.

## 15.2 STATE/LOCAL

### PENNSYLVANIA (WORKER AND COMMUNITY RIGHT-TO-KNOW ACT)

The following components of this product appear on the Massachusetts Substance List and are present at levels which could require identification in the MSDS:

Component	CAS #	Amount
Propyl acetate	109-60-4	<= 100.0000%
Propanol	71-23-8	<= 1.2458%

### MASSACHUSETTS (HAZARDOUS SUBSTANCES DISCLOSURE BY EMPLOYERS)

The following components of this product appear on the Massachusetts Substance List and are present at levels which could require identification in the MSDS:

Component	CAS #	Amount
-----------	-------	--------

# MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 15 of 16

Propyl acetate	109-60-4	<= 100.0000%
Propanol	71-23-8	<= 1.2458%

## CALIFORNIA PROPOSITION 65 (SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

Component	CAS #	Amount
Propyl acetate	109-60-4	<= 100.0000%

## CALIFORNIA SCAQMD RULE 443.1 (SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 443.1, LABELING OF MATERIALS CONTAINING ORGANIC SOLVENTS)

VOC: 887 g/l Vapor pressure 25 mmHg @ 20 °C

*This section provides selected regulatory information on this product including its components. This is not intended to include all regulations. It is the responsibility of the user to know and comply with all applicable rules, regulations and laws relating to the product being used.*

## **16. OTHER INFORMATION**

### **16.1 AVAILABLE LITERATURE AND BROCHURES**

Additional information on this product may be obtained by calling the Union Carbide Corporation Customer Service Center at 1-800-568-4000.

### **16.2 SPECIFIC HAZARD RATING SYSTEM**

HMIS ratings for this product are: H - 1      F - 3      R - 0

NFPA ratings for this product are: H - 1      F - 3      R - 0

## MATERIAL SAFETY DATA SHEET

Product Name: PROPYL ACETATE  
MSDS#: 1547

Effective Date: 06/05/2001  
Page 16 of 16

*These ratings are part of specific hazard communications program(s) and should be disregarded where individuals are not trained in the use of these hazard rating systems. You should be familiar with the hazard communication applicable to your workplace.*

### 16.3 RECOMMENDED USES AND RESTRICTIONS

FOR INDUSTRY USE ONLY

### 16.4 REVISION

Version: 3.

Revision: 06/05/2001

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

### 16.5 LEGEND

A	Asphyxiant
Bacterial/NA	Non Acclimated Bacteria
F	Fire
H	Health
HMIS	Hazardous Materials Information System
N/A	Not available
NFPA	National Fire Protection Association
O	Oxidizer
P	Peroxide Former
R	Reactivity
TS	Trade Secret
VOL/VOL	Volume/Volume
W	Water Reactive
W/W	Weight/Weight

*The opinions expressed herein are those of qualified experts within Union Carbide. We believe that the information contained herein is current as of the date of this Material Safety Data Sheet. Since the use of this information and the conditions of the use of the product are not under the control of Union Carbide, it is the user's obligation to determine conditions of safe use of the product.*

1716





# Material Safety Data Sheet

NFPA	Revision Date	Protective Clothing
	03-13-95, 05-07-96	

## Section I. Chemical Product and Company Identification

Common Name/ Trade Name	<b>Barsol A-2155</b>	Code	60019180
Supplier	Barton Solvents, Inc. 1920 N.E. Broadway, P.O. Box 221 Des Moines, IA 50301	CAS#	Mixture
Synonym	Not available.	In case of Emergency	CHEMTREC (800) 424-9300
Chemical Name	Not applicable.		
Chemical Family	Solvent		
Chemical Formula	Not applicable.		
Manufacturer	Available upon request	Material Uses	Not available.

## Section II. First Aid Measures

Eye Contact	Check for and remove any contact lenses. IMMEDIATELY flush eyes with running water for at least 15 minutes, keeping eyelids open. COLD water may be used. DO NOT use an eye ointment. Seek medical attention.
Aln Contact	If the chemical got onto the clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
Hazardous Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	Allow the victim to rest in a well ventilated area. Seek immediate medical attention.
Hazardous Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Ingestion	If swallowed, INDUCE VOMITING immediately as directed by medical personnel. NEVER give an unconscious person anything to ingest. Seek medical attention.
Hazardous Ingestion	Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.

## Section III. Composition and Information on Ingredients

Name	CAS #	% by Volume	TLV/PEL	LC <sub>50</sub> /LD <sub>50</sub>
Ethanol	64-17-5	> 9	TWA: 1000 (ppm) from ACGIH TWA: 1000 (ppm) from OSHA/NIOSH (ppm)	ORAL (LD50) mg/kg: Acute: 7060 (Rat.). VAPOR (LC50)ppm : Acute: 8000 (Rat.) (4 hour(s)).
Propyl acetate	109-60-4	> 9	TWA: 200 (ppm) from ACGIH	ORAL (LD50) mg/kg: Acute: 9370 (Rat.).
Isopropyl alcohol	67-63-0	> 1	TWA: 400 (ppm) from OSHA/NIOSH TWA: 400 (ppm) from ACGIH	ORAL (LD50) mg/kg: Acute: 3600 (Mouse.). VAPOR (LC50)ppm : Acute: 16970 (Rat.) (4 hour(s)).

## Section IV. Hazards Identification

Potential Acute Health Effects	Slightly dangerous to dangerous in case of skin contact (irritant), of eye contact (irritant). Very slightly to slightly dangerous in case of skin contact (sensitizer, permeator), of ingestion, of inhalation. Severe over-exposure can result in death. Can be fatal if inhaled or ingested. This product may irritate eyes and skin upon contact.
Potential Chronic Health Effects	CARCINOGENIC EFFECTS: Classified A5 by ACGIH, 4 by IARC [ Propyl acetate]. Classified A5 by ACGIH, 4 by IARC [ Isopropyl alcohol]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. Toxicity of the product to the reproductive system: Not available. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

## Section V. Fire and Explosion Data

Flammability of the Product	Flammable.
Auto-Ignition Temperature	398.89°C (750°F) based on data for Isopropyl alcohol.
Flash Points	CLOSED CUP: (Tagliabue.) 11.67°C (53°F) (Isopropyl alcohol).
Flammable Limits	LOWER: 3.3% ( Ethanol) UPPER: 19% ( Ethanol)
Products of Combustion	These products are carbon oxides (CO, CO2).
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames and sparks, of heat. Slightly flammable to flammable in presence of oxidizing materials, of combustible materials.
Fire Fighting Media and Instructions	Flammable liquid, soluble or dispersed in water. SMALL FIRE: Use DRY chemicals, CO2, alcohol foam or water spray. LARGE FIRE: Use alcohol foam, water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Special Remarks on Fire Hazards	Containers should be grounded. (Ethanol)
Special Remarks on Explosion Hazards	No additional remark.

## Section VI. Accidental Release Measures

Small Spill	Dilute with water and mop up, or absorb with an inert DRY material and place in an appropriate waste disposal container.
Large Spill	Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all sources of ignition.

**Section VII. Handling and Storage****Precautions**

Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles as oxidizing agents, acids, alkalis, moisture.

**Storage**

Flammable materials should be stored in a separate safety storage cabinet or room. Keep away from heat. Keep away from sources of ignition. Keep container tightly closed. Keep in a cool, well-ventilated place. Ground all equipment containing material.

**Section VIII. Exposure Controls/Personal Protection****Engineering Controls**

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.

**Personal Protection**

Splash goggles. Lab coat. Gloves (impervious). Wear appropriate respirator when ventilation is inadequate.

**Personal Protection in Case of a Large Spill**

Splash goggles. Full suit. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Section IX. Physical and Chemical Properties****Physical state and appearance**

Liquid.

Odor Alcohol.

**Molecular Weight**

Not applicable.

Taste Not available.

**pH (1% soln/water)**

Neutral.

Color Clear

**Boiling Point**

78.5°C (173.3°F) based on data for: Ethanol. Weighted average: 84.29°C (183.7°F)

**Melting Point**

Not available.

**Critical Temperature**

Not available.

**Specific Gravity**

Weighted average: 0.8 (Water = 1)

**Vapor Pressure**

Weighted average: 38.23 mm of Hg (@ 20°C)

**Vapor Density**

Weighted average: 2.08 (Air = 1)

**Volatility**

100% (v/v) Weighted average. 100% (w/w) Weighted average.

**Odor Threshold**

Not available.

**Evaporation rate**

2.3 based on data for: Propyl acetate. Weighted average: 1.85 [Butyl acetate.]

**Viscosity**

Not available.

**Solubility**

Easily soluble in cold water, hot water, methanol, diethyl ether.  
Soluble in acetone.  
Partially soluble in n-octanol.

**Section X. Stability and Reactivity Data****Stability**

The product is stable.

**Instability Temperature**

Not available.

**Conditions of Instability**

No additional remark.

**Incompatibility with various substances**

Slightly reactive to reactive with oxidizing agents, acids, alkalis, moisture.

**Corrosivity**

Non-corrosive in presence of glass.

**Special Remarks on Reactivity**

May undergo autopolymerization. (Propyl acetate)

Special Remarks on Corrosivity No additional remark.

### Section XI. Toxicological Information

Routes of Entry Ingestion.

Toxicity to Animals **WARNING: THE LC50 VALUES HEREUNDER ARE ESTIMATED ON THE BASIS OF A 4-HOUR EXPOSURE.**  
 Acute oral toxicity (LD50): 3600 mg/kg (Mouse.) (Isopropyl alcohol).  
 Acute toxicity of the vapor (LC50): > 5000 ppm (Rat.) (Ethanol).

Chronic Effects on Humans **CARCINOGENIC EFFECTS:** Classified A5 by ACGIH, 4 by IARC [ Propyl acetate]. Classified A5 by ACGIH, 4 by IARC [ isopropyl alcohol].  
 Toxicity of the product to the reproductive system: Not available.

Other Toxic Effects on Humans Slightly dangerous to dangerous in case of skin contact (irritant), of eye contact (irritant).  
 Very slightly to slightly dangerous in case of skin contact (sensitizer, permeator), of ingestion, of inhalation.

Special Remarks on Toxicity to Animals No additional remark.

Special Remarks on Chronic Effects on Humans Detected in maternal milk in human.  
 (Isopropyl alcohol)

Special Remarks on Other Toxic Effects on Humans Moderately toxic and narcotic in high concentrations. (Ethanol)

### Section XII. Ecological Information

Ecotoxicity Not available.

BOD5 and COD Not available.

Products of Biodegradation These products are carbon oxides (CO, CO2).

Toxicity of the Products of Biodegradation The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation No additional remark.

### Section XIII. Disposal Considerations

Waste Disposal Recycle to process, if possible. Consult your local or regional authorities.

### Section XIV. Transport Information

DOT Classification DOT CLASS 3: Flammable liquid.

PIN Paint Related Material, 3, UN1263, II

Special Provisions for Transport No additional remark.

DOT (Pictograms)





Barsol A-2155

Page Number: 5

## Section XV. Other Regulatory Information and Pictograms

Federal and State  
regulations

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQs) and release reporting based on Reportable Quantities (RQs) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). Components present in this product at a level which could require reporting under the statute are:

NONE

Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires submission of annual report release of toxic chemicals that appear in 40 CFR 372 (used for SARA 313). This information must be included in all MSDSs that are copied and distributed for this material.

Components present in this product at a level which could require reporting under the statute are:

NONE

Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal or greater than the reportable quantities (RQs) in 40 CFR 302.4. Components present in this product at a level which could require reporting under the statute are:

NONE

## Other Classifications

WHMIS (Canada) WHMIS CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).

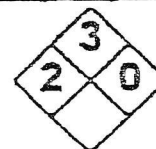
DSCG (EEC) R20- Harmful by inhalation.

## HMIS (U.S.A.)

Health Hazard	4
Fire Hazard	3
Reactivity	0
Personal Protection	0

National Fire  
Protection  
Association (U.S.A.)

Health



Fire Hazard

Reactivity

Specific hazard

Protective Clothing  
(Pictograms)

## Section XVI. Other Information

## References

Not available.

Other Special  
Considerations

05-07-96: Format Change, Components.

Validated by Barton Solvents, Inc. on 5/7/96.

Verified by Barton Solvents, Inc..

Printed 5/7/96.

Daytime Phone - (515) 265-7998

## Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although risks hazards are described herein, we cannot guarantee that these are the only hazards that exist.

F5

Page 300

# MATERIAL SAFETY DATA SHEET

IDENTITY **BARCOL A-2155**

Page 2

Date Prepared: 11-85;  
Rev. 8-88; 3/13/95

## Section VI - Health Hazard Data

Route(s) of Entry: Inhalation? Skin? Ingestion?  
Yes No Yes

Health Hazards (Acute and Chronic): INHALING: Anesthetic. Irritates respiratory tract. May cause serious nervous system depression. Repeated exposure over TLV may cause blindness. Breathing of vapor may cause irritation. SKIN & EYE: Primary irritation. Liquid may cause skin irritation. INGESTION: Vapor harmful. May be fatal or cause blindness if swallowed. Cannot be made non-poisonous.

Carcinogenicity: NTP? IARC Monographs? OSHA Regulated?  
No No No

Signs and Symptoms of Exposure: Headache, dizziness, drowsiness, nausea, unconsciousness, coma and possibly death in high concentration of vapors in confined areas.

## Medical Conditions

Generally Aggravated by Exposure: Preexisting skin, respiratory, and eye conditions.

POISON

POISON

POISON

Emergency and First Aid Procedures: EYES: Wash with water for 15 minutes and get medical attention. SKIN: Remove contaminated clothing and shoes. Wash with soap and water. If irritation occurs, seek medical advice. INHALATION: Remove to fresh air. INGESTION: Get medical attention! INDUCE vomiting promptly according to physician's instructions or by having patient stick finger down throat. After vomiting has been induced, give two teaspoonsful of baking soda in a glass of water. Never give anything by mouth to an unconscious person. Have patient lie down & keep warm. Cover eyes to exclude light.

## Section VII - Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released or Spilled: Eliminate all sources of ignition. Contain spill so that it does not get into streams or groundwater. Absorb with absorbent or sand. Wear proper personal protective clothing.

Waste Disposal Method: Recycle or incinerate observing local, state & Federal regulations.

Precautions to be Taken in Handling and Storing: Isolate from oxidizers, heat, sparks, electric equipment and open flame.

Other Precautions: Do not flame cut, saw, braze or weld. Empty container hazardous! Continue all label precautions.

## Section VIII - Control Measures

Respiratory Protection (Specify Type): Ventilate to keep air below TLV. If above TLV, use self-contained air pack.

Ventilation Local Exhaust: Ventilate to reduce levels of air contaminants below that which may cause personal injury or illness. Special: None

Mechanical (General): Yes Other: None

Protective Gloves: Yes (must not dissolve in solvents) Eye Protection: Required. Splash proof goggles or face shield

Other Protective Clothing or Equipment: Clean, body-covering clothes. Eye wash and shower should be available for emergency use.

Work/Hygienic Practices: Follow safe work practices. Wash hands prior to eating or smoking.

FL6

# MATERIAL SAFETY DATA SHEET

IDENTITY (As used on label and list)

BAR SOL A-2155

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

## Section I

BARTON SOLVENTS, INC.  
1920 N.E. Broadway  
P. O. Box 221  
Des Moines, Iowa 50301

ONLY IN THE EVENT OF CHEMICAL EMERGENCIES

INVOLVING A SPILL, LEAK, FIRE, EXPOSURE, OR  
ACCIDENT INVOLVING CHEMICALS, CALL

CHEMTREC 800 424-9300

Telephone Number for Information & Emergency:  
515 265-7998

Date Prepared 11-85; Rev. 8-11-88; 3/13/95

## Section II - Hazardous Ingredients/Identity Information

Hazardous Components	CAS NO.	ACGIH TLV, ppm	OSHA PEL (ppm)	%(optional)
Ethyl Alcohol 40%	64-17-5	1000	1000	>9
n-Propyl Acetate 20%	109-60-4	200	200	>9
*Methyl Alcohol	67-56-1	200 (skin)	200	4

\*This product is a toxic chemical subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372.

Calculated TLV of Mixture: 710 ppm

NFPA Hazard: Health 1 Flammability 3 Reactivity 0

TLV Registered by the ACGIH

## Section III - Physical/Chemical Characteristics

Boiling Point 75 76 87 °C / 167 169 188 °F	Specific Gravity (H <sub>2</sub> O=1) 0.828
Vapor Pressure (mm Hg.) 41.7	Melting Point n/a
Vapor Density (Air = 1) 1.8	Evaporation Rate (Butyl Acetate = 1) 1.8

Solubility in Water Appreciable  
Appearance and Odor Clear and Water White - Ester Odor

## Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used) 4 °C / 40 °F	Flammable Limits	LEL 2.0	UEL n/a
--	------------------	---------	---------

Extinguishing Media: NFPA Class B Extinguishers (CO<sub>2</sub> or Foam) for Class I B liquid fires.

Special Fire Fighting Procedures: Water spray may be ineffective on fire but can protect fire fighters and cool closed containers. Use fog nozzles if water is used. Use air-supplied breathing masks.

Unusual Fire and Explosion Hazards: FLAMMABLE!! Keep containers tightly closed. Closed containers may explode if exposed to extreme heat. Vapors are heavier than air and may travel long distances to source of ignition and flash back.

## Section V - Reactivity Data

Stability: Unstable Conditions to Avoid: Isolate from oxidizers, heat, sparks, electrical equipment and open flames.

Stable XX

Incompatibility (Materials to Avoid): Isolate from strong oxidizers such as permanganate.

Hazardous Decomposition or Byproducts: Carbon Monoxide from burning

Hazardous : May Occur Conditions to Avoid:  
Polymerization : Will Not Occur XX

Legal responsibility is assumed only for the fact that all studies reported here & all opinions are those of qualified experts. Buyer assumes all risk & liability. He accepts & uses this material on these conditions.

Page F7



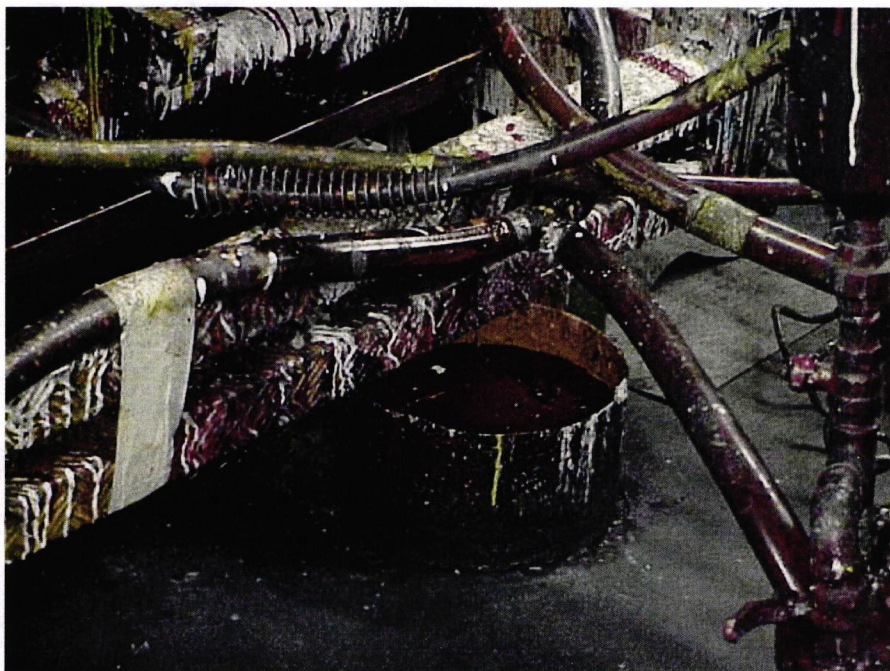
## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



**Photo Number: 9**

**Date: 6/29/04**

**Direction: Southeast**

**Description:** A view of a satellite container located under a drip pan the press line closest to the mixing room. Note that this container was open (Violation 5) and not labeled (Violation 6).



**Photo Number: 10**

**Date: 6/29/04**

**Direction: Northwest**

**Description:** A view of a 5-gallon bucket (on the floor) being used to collect drippings from the solvent distribution container located on the table. The operator at this line also said that rags are occasionally rung out into the bucket. This container was not labeled or closed (Violations 5 and 6).



## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



**Photo Number: 11**

**Date: 6/29/04**

**Direction: Northwest**

**Description: A view of the contents of the bucket shown in photo 10.**



**Photo Number: 12**

**Date: 6/29/04**

**Direction: East**

**Description: A view of another container (floor) at press line A6 that is used to catch drippings from the solvent distribution container located on the table. This container was not labeled or closed (Violations 5 and 6).**



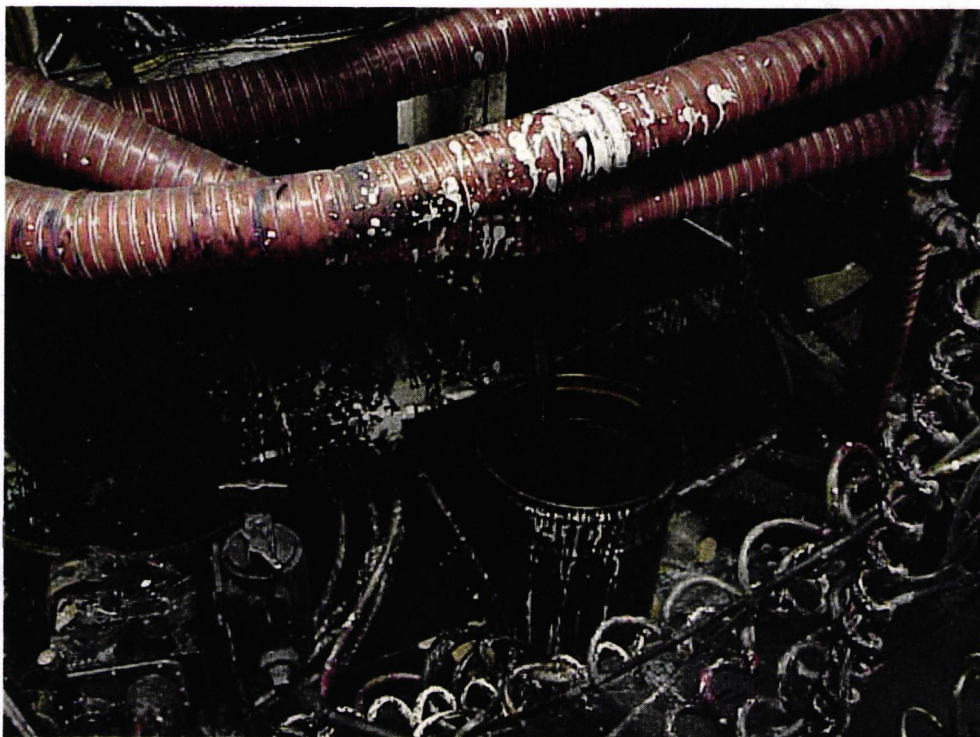
## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



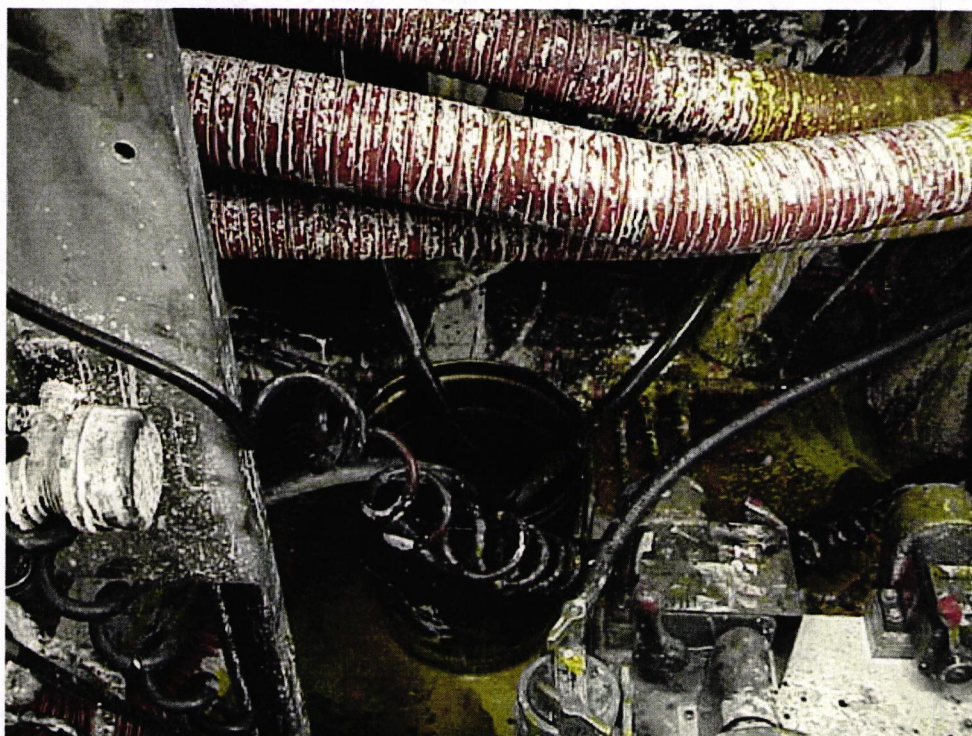
**Photo Number:** 13

**Date:** 6/29/04

**Direction:** North

**Description:**

Another container under a drip pan on press line A6 used to collect waste solvent and waste ink from the line. This container was not labeled or closed (Violations 5 and 6). This machine had two of these buckets. The second is shown in the next photo.



**Photo Number:**

14

**Date:** 6/29/04

**Direction:** North

**Description:** The second drip container on line A6. This container was not labeled or closed (Violations 5 and 6).



## PHOTOGRAPHIC LOG

**Robbie Manufacturing, Inc.**

10810 Mid America Ave., Lenexa, KS

**EPA ID No.: KSD054080148**

Photos taken by Rebecca Wenner using Digital Camera



**Photo Number: 15**

**Date: 6/29/04**

**Direction: North**

**Description:** Two 5-gallon buckets (floor) used to collect drips from the two solvent distribution cans located on the table. The cans appeared to contain the same solvent and it was not clear why there were two at this location. Neither of these was labeled or closed (Violations 5 and 6).



**Photo Number: 16**

**Date: 6/29/04**

**Direction: East**

**Description:** A view of the two 55-gallon drums of used oil. Neither of these was labeled as to the contents (Violation 7).